Sixth edition

Medical eligibility criteria for contraceptive use

World Health Organization

human reproduction programme hrp
research for impact
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Guideline Development Group (GDG)

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Evidence Synthesis Team (EST)

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Observers

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the GDG meetings: International Planned Parenthood Federation (IPPF) (Nathalie Kapp), United Nations Population Fund (UNFPA) (Agnes Chidanyika) and United States Agency for International Development (Amanda Cordova, until 20 January 2025).

WHO Guideline Steering Group (GSG)

WHO is also grateful for the input to this guideline from the following WHO GSG members from a range of departments at WHO headquarters in Geneva.

- Department of Sexual and Reproductive Health and Research (SRH) – James Kiarie (Unit Head, Contraception and Fertility Care [CFC]), Therese Curtin (CFC), Nancy Kidula (CFC), Petrus Steyn (CFC), Åsa Hanna Mari Nihlén (Human Rights Advisor), Caron Rahn Kim (Prevention of Unsafe Abortion [PUA])
- Department of Essential Medicines and Health Products – Matthias Mario Stahl (Prequalification) and Lorenzo Moja (Essential Medicines List)
- Global HIV, Hepatitis and Sexually Transmitted Infections Programmes – Marco Antonio De Avila Vitoria
- Director-General's Office –Anna Coates (Gender Advisor).

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- WHO Regional Office for Africa – Léopold Ouedraogo
- WHO Regional Office for the Eastern Mediterranean – Karima Gholbzouri
- WHO Regional Office for Europe – Oleg Kuzmenko
- WHO Regional Office for the Americas (Pan American Health Organization) – Rodolfo Gómez Ponce de León
- WHO Regional Office for the Western Pacific – Madeline Solitario Salva.

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- Department of SRH – Pascale Allotey (Director), Moazzam Ali (CFC), Rita Kabra (CFC), Asantesana Kamuyango (CFC), Nandita Thatte (CFC), Mercedes Bonet (Maternal and Perinatal Health), Manjulaa Narasimhan (Self-Care) and Polyphile Ntihinyurwa (PUA)
- Department of Nutrition and Food Safety – Nina Chad.

Coordination and writing

Overall coordination for guideline development was provided by the WHO Secretariat Team, comprising James Kiarie (Unit Head) and Nancy Kidula (responsible technical officer) from the CFC unit at WHO's SRH Department. The first draft of the guideline was written by Mary Lyn Gaffield, Nancy Kidula and Maria Isabel Rodriguez. Drafts were reviewed and input was provided by members of the GDG, EST, ERG and the WHO GSG. The seven systematic reviews providing summarized evidence for this guideline were co-authored by Moazzam Ali, Sylvia Achieng Ayieko, Mercedes Bonet, Roger Chou, Erin Fleurant, Mary Lyn Gaffield, Sophia Garbarino, James Kiarie, Nancy Kidula, Lauren Mengesa, Kavita Nanda, Alfred Osoti, Emma Smith, Emily Snyder, Petrus Steyn, Angeline Ti, Tesfaye Tufa, and Mekdes Wolderufael, and until 20 January 2025, Kathryn Curtis, Katherine Kortsmit, Antoinette Nguyen, Naomi Tepper and Lauren Zapata. The Grading of Recommendations Assessment, Development and Evaluation (GRADE) tables and expertise on GRADE methodology were provided by Roger Chou.

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Abbreviations

ART	antiretroviral therapy
ARV	antiretroviral
ß-hCG	beta-human chorionic gonadotropin
BF	breastfeeding
BMD	bone mineral density
BMI	body mass index
C	continuation
CD4	cluster of differentiation 4
CFC	Contraception and Fertility Care unit (in the WHO Department of Sexual and Reproductive Health)
CHC	combined hormonal contraception
CI	coitus interruptus
CIC	combined injectable contraceptive
CIN	cervical intraepithelial neoplasia
CIRE	Continuous Identification of Research Evidence
COC	combined oral contraceptive (pill)
CRPD	United Nations Convention on the Rights of Persons with Disabilities
Cu-IUD	copper-bearing intrauterine device
CVD	cardiovascular disease
CVR	combined contraceptive vaginal ring
CYP3A4	cytochrome P450 3A4 enzyme
DOI	declaration of interests
DMPA	depot medroxyprogesterone acetate
DMPA-IM	depot medroxyprogesterone acetate – intramuscular
DMPA-SC	depot medroxyprogesterone acetate – subcutaneous
DVT	deep vein thrombosis
EC	emergency contraception
ECP	emergency contraceptive pill
E-IUD	copper-bearing intrauterine device for emergency contraception
ERG	External Review Group
EST	Evidence Synthesis Team
EtD	evidence-to-decision
ETG	etonogestrel
FAB	fertility-awareness-based
FIGO	International Federation of Gynecology and Obstetrics
FP DAK	*Digital adaptation kit for family planning*
GDG	Guideline Development Group
GnRH	gonadotropin-releasing hormone
GRADE	Grading of Recommendations Assessment, Development and Evaluation
GSG	Guideline Steering Group
HbA1c	glycated haemoglobin
HCA	hepatocellular carcinoma of the liver
HDL	high-density lipoprotein
HRP	UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (also known as the Human Reproduction Programme)
I	initiation
IBP	Implementing Best Practices
ICN	International Council of Nurses
ICM	International Confederation of Midwives
ICPD	International Conference on Population and Development
IUD	intrauterine device
LAM	lactational amenorrhoea method
LDL	low-density lipoprotein
LNG	levonorgestrel
LNG-IUD	levonorgestrel-releasing intrauterine device
MEC	*Medical eligibility criteria for contraceptive use* (this publication)
MI	myocardial infarction
mm HG	millimetres of mercury – the unit of pressure used for all blood pressure measurements in this document[1]
NA	not applicable
NET-EN	norethisterone enanthate
NIH	National Institutes of Health (United States of America)
NNRTI	non-nucleoside/nucleotide reverse transcriptase inhibitor
NRTI	nucleoside/nucleotide reverse transcriptase inhibitor
OC	oral contraceptive (pill)
P	combined contraceptive patch
PE	pulmonary embolism
PI	protease inhibitor
PID	pelvic inflammatory disease
PICO	population, intervention, comparator, outcome
POC	progestogen-only contraceptive
POI	progestogen-only injectable
POP	progestogen-only pill
PrEP	pre-exposure prophylaxis
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses
PROSPERO	International Prospective Register of Systematic Reviews
PVR	progesterone-releasing vaginal ring
RCT	randomized controlled trial
SDG	Sustainable Development Goal
SDM	Standard Days Method
SIL	squamous intraepithelial lesions
SLE	systemic lupus erythematosus
SPR	*Selected practice recommendations for contraceptive use* (WHO guideline that is a companion to the MEC)
SRH	sexual and reproductive health
STI	sexually transmitted infection
SVT	superficial venous thrombosis
TB	tuberculosis
TSS	toxic shock syndrome
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UPA	ulipristal acetate
UTI	urinary tract infection
VTE	venous thromboembolism
WHO	World Health Organization
WHO IRIS	WHO institutional repository for information sharing

[1] To convert mm HG to kPa, multiply by 0.1333, e.g. 120/80 mm Hg = 16.0/10.7 kPa.

Executive summary

This document is part of the process for improving the quality of care in family planning. *Medical eligibility criteria for contraceptive use* (MEC) presents current World Health Organization (WHO) recommendations on the safety of various contraceptive methods for use in the context of specific health conditions and personal or physiological characteristics. This is the sixth edition of the MEC – the latest in the series of periodic updates.

In this document, the MEC, the safety of each contraceptive method is determined by several considerations in the context of the medical condition or medically relevant characteristics – primarily, whether the contraceptive method worsens the medical condition or creates additional health risks, and secondarily, whether the medical circumstance makes the contraceptive method less effective. The safety of the method should be weighed along with the benefits of preventing unintended pregnancy.

This sixth edition of the MEC is presented in this main document and accompanied by a web annex. The main document contains the recommendations and explanations about how to apply them. The recommendations contained within the document are based on the latest clinical and epidemiological data. The web annex first describes how the evidence base and the recommendations were developed, and then presents the Grading of Recommendations Assessment, Development and Evaluation (GRADE) tables. Several tools and job aids are available from WHO and other sources to help health-care managers and health workers to use these recommendations in practice.

This document covers the following family planning methods: low-dose combined oral contraceptives (COCs) (i.e. a combination of ≤ 35 µg ethinyl estradiol and a progestogen), the combined contraceptive patch (P), the combined vaginal ring (CVR), combined injectable contraceptives (CICs), progestogen-only pills (POPs), depot medroxyprogesterone acetate (DMPA), norethisterone enanthate (NET-EN), levonorgestrel (LNG) and etonogestrel (ETG) implants, emergency contraceptive pills (ECPs), copper-bearing intrauterine devices (Cu-IUDs), levonorgestrel-releasing IUDs (LNG-IUDs), Cu-IUDs for emergency contraception (E-IUD), the progesterone-releasing vaginal ring (PVR), various barrier methods (BARR) and fertility-awareness-based methods (FAB), the lactational amenorrhoea method (LAM), coitus interruptus (CI) and female and male sterilization (STER).

Each pairing of a particular medical condition or medically relevant characteristic with a particular contraceptive method is assigned to one of four numbered "MEC categories" indicating the relative safety or risk level. Depending upon the individual, more than one condition may need to be considered together to determine their contraceptive eligibility in order to help them choose an appropriate contraceptive method to use.

Box 1. MEC categories for contraceptive eligibility

MEC Category 1	A condition for which there is no restriction for the use of the contraceptive method.
MEC Category 2	A condition where the advantages of using the contraceptive method generally outweigh the theoretical or proven risks.
MEC Category 3	A condition where the theoretical or proven risks usually outweigh the advantages of using the contraceptive method.
MEC Category 4	A condition which represents an unacceptable health risk if the contraceptive method is used.

Target audience

The intended audience for this publication is mainly policy-makers, family planning programme managers and the scientific community. The MEC is not meant to serve as actual guidelines for national family planning and reproductive health programmes, but rather as a reference in the preparation of national- or facility-level guidelines for delivery of contraceptive services. The recommendations in this document are intended to be interpretated at the country and programme levels, in a manner that reflects the diversity of situations and settings in which contraceptives are provided. While it is unlikely that the classification of categories in this document would change during this process, it is very likely that the application of these categories at country level will vary. In particular, the level of clinical knowledge and experience of various types of health workers and the resources available at the different service-delivery points will have to be taken into consideration.

Guideline development methods

The Guideline Development Group (GDG) convened by WHO consisted of 19 individuals from 16 countries, including experts in family planning, reproductive endocrinology, midwifery, gynaecology, obstetrics, epidemiology, pharmacology, gender, policy-making, health systems, guideline methodology and evidence synthesis and user experiences. The Acknowledgements section of this document lists all the GDG members, while Annex 1 outlines their declarations of interests. The mandate of the GDG was to review the evidence and, where appropriate, revise the recommendations in the fifth edition of the MEC to develop the sixth edition. The meetings were held on 8–10 November 2022 and 23–25 July 2024.

For this revision, the GDG prioritized the review of: (a) four topics identified as important to the field and/or those topics with new evidence that may warrant a change in the existing recommendation; and (b) two new topics for inclusion in the sixth edition. Therefore, recommendations for a total of six topics were reviewed for the sixth edition of the MEC.

The GDG considered the overall quality of the available scientific evidence, paying particular attention to the strength and consistency of the data, in accordance with the GRADE approach to evidence review. In addition, the GDG applied the GRADE evidence-to-decision (EtD) framework to ensure that recommendations were based on the consideration of the quality of the evidence, the balance of benefits and harms, the values and preferences of users and health workers, the priority of the problem, acceptability to users, cost/resources, feasibility of implementation and health equity. In most cases, the quality of evidence pertaining to each recommendation was low or very low and only addressed potential harms related to contraceptive use. To arrive at a MEC category designation, within the range 1–4, the GDG considered the GRADE evidence profiles and the EtD framework domains.

In many instances, either no new evidence had been identified since the publication of the fifth edition of the MEC (2015), or it was found that the evidence emerging since that publication confirmed previous research findings. Therefore, in many cases the recommendations that were published in the fifth edition have been reviewed and confirmed by the GDG with no changes made. For the changed recommendations, the WHO Secretariat Team updated the evidence statements and the references that are cited in the contraceptive method tables.

WHO will initiate a review of the recommendations in this document in four years. In the interim, WHO will continue to monitor the body of evidence informing these recommendations and will convene additional consultations, as needed, should new evidence necessitate reconsideration of the existing recommendations. Such updates may be particularly warranted for issues where the evidence base may change rapidly. Any interim recommendations will be made available on WHO's web pages for sexual and reproductive health and the UNDP/UNFPA/UNICEF/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP) at http://www.who.int/hrp and the web page for contraception at http://www.who.int/health-topics/contraception. WHO encourages research aimed at addressing key unresolved issues related to establishing medical eligibility criteria for contraceptive use. WHO also invites comments and suggestions for improving this guideline.

Summary of the topics reviewed

Six topics (encompassing over 100 recommendations) were reviewed by the GDG during the 2024 revision of the MEC (see Table 1). The GRADE approach was applied to assess the quality of the available evidence,

and this provided the basis for the formulation of recommendations (see central column). For some topics, multiple outcomes of interest and/or contraceptive methods were examined. For these topics, GRADE assessments of the quality of evidence are presented, either a single assessment or as a range (see final column). An explanation of the process followed to select and prioritize these topics is included in Annex 2. Other than the recommendations shown in Table 1, all other recommendations were confirmed by the GDG and did not undergo formal review for the updated sixth edition of the MEC. A summary of the changes between the fifth and sixth editions of this document is available in section 4, Tables 4.1 and 4.2.

Table 1. Topics reviewed and recommendations for the *Medical eligibility criteria for contraceptive use* (MEC), sixth edition

Topic	MEC recommendation	GRADE assessment of quality of evidence[a]
Recommendations for progestogen-only contraceptive (POC) use among breastfeeding women		
< 6 weeks postpartum	Women who are < 6 weeks postpartum and breastfeeding can generally use progestogen-only pills (POPs), levonorgestrel (LNG) and etonogestrel (ETG) implants, and progestogen-only injectables (POIs) (depot medroxyprogesterone acetate [DMPA-IM and DMPA-SC] and norethisterone enanthate [NET-EN]) (MEC Category 2).	Range: Low to very low
≥ 6 weeks to < 6 months postpartum	Women who are ≥ 6 weeks to < 6 months postpartum and breastfeeding can use POPs, POIs (DMPA and NET-EN), and LNG and ETG implants without restriction (MEC Category 1).	
≥ 6 months postpartum	Breastfeeding women who are ≥ 6 months postpartum can use POPs, POIs (DMPA and NET-EN), and LNG and ETG implants without restriction (MEC Category 1).	
Recommendations for intrauterine device (IUD) use among breastfeeding women		
< 48 hours postpartum	Breastfeeding women who are < 48 hours postpartum can use a copper-bearing (Cu-IUD) without restriction (MEC Category 1). Breastfeeding women who are < 48 hours postpartum can generally use LNG-releasing IUDs (LNG-IUDs) (MEC Category 2).	Very low
≥ 48 hours to < 4 weeks postpartum	Breastfeeding women who are ≥ 48 hours to < 4 weeks postpartum should generally not have an LNG-IUD or Cu-IUD inserted (MEC Category 3).	
≥ 4 weeks postpartum	Breastfeeding women who are ≥ 4 weeks postpartum can use an LNG-IUD or Cu-IUD without restriction (MEC Category 1).	
Recommendations for emergency contraceptive pills (ECPs)		
ECP use more than once in a menstrual cycle	Women using ECPs more than once in a menstrual cycle can use ECPs (combined oral contraceptives [COC], LNG or ulipristal acetate [UPA]) without restriction (MEC Category 1).	Very low

Topic	MEC recommendation	GRADE assessment of quality of evidence[a]
Recommendations for use of hormonal contraception for women living with HIV and using antiretroviral therapy (ART)		
Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs)	Women taking any NRTI can use combined hormonal contraceptives (CHCs), POPs, POIs and implants without restriction (MEC Category 1). Women living with asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) who are using NRTIs can generally have an LNG-IUD inserted (MEC Category 2). Women living with severe or advanced HIV clinical disease (WHO stage 3 or 4) who are using NRTIs should generally not initiate use of the LNG-IUD (MEC Category 3).	Very low
Non-nucleoside/ nucleotide reverse transcriptase inhibitors (NNRTIs)	Women using NNRTIs containing efavirenz can generally use CHCs, POPs, NET-EN and implants (MEC Category 2). Women using efavirenz can use DMPA without restriction (MEC Category 1). Women using NNRTIs that do not contain efavirenz can use CHCs, POPs, POIs and implants without restriction (MEC Category 1). Women living with asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) who are using NNRTIs can generally have an LNG-IUD inserted (MEC Category 2). Women living with severe or advanced HIV clinical disease (WHO stage 3 or 4) who are using NNRTIs should generally not initiate use of the LNG-IUD (MEC Category 3).	
Protease inhibitors (e.g. ritonavir and antiretroviral drugs [ARVs] boosted with ritonavir)	Women using protease inhibitors can use CHCs, POPs, POIs and implants without restriction (MEC Category 1). Women living with asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) who are using protease inhibitors can generally have an LNG-IUD inserted (MEC Category 2). Women living with severe or advanced HIV clinical disease (WHO stage 3 or 4) who are using protease inhibitors should generally not initiate use of the LNG-IUD (MEC Category 3).	
Integrase inhibitors: raltegravir dolutegravir	Women using integrase inhibitors can use all hormonal contraceptive methods without restriction (MEC Category 1). Women living with asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) who are using integrase inhibitors can generally have an LNG-IUD inserted (MEC Category 2). Women living with severe or advanced HIV clinical disease (WHO stage 3 or 4) who are using integrase inhibitors should generally not initiate use of the LNG-IUD (MEC Category 3).	

Topic	MEC recommendation	GRADE assessment of quality of evidence[a]
Recommendations for use of hormonal contraception for women taking HIV pre-exposure prophylaxis (PrEP)		
Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs): tenofovir-emtricitabine	Women using PrEP can use all hormonal contraceptive methods without restriction (MEC Category 1).	Range: Low to very low
Non-nucleoside/nucleotide reverse transcriptase inhibitors (NNRTIs): dapivirine ring (DPV)		
Integrase inhibitors: cabotegravir (CAB)		
Recommendations for women with inflammatory bowel disease (IBD)		
The GDG reviewed evidence presented in a systematic review and GRADE tables assessing the quality of the evidence. The GDG judged that the body of evidence was insufficient to make any recommendations, considering the challenges in making an IBD diagnosis in many regions.		Very low

CHC: combined hormonal contraceptive; COC: combined oral contraceptive; Cu-IUD: copper-bearing IUD; DMPA: depot medroxyprogesterone acetate; ETG: etonogestrel; GDG: Guideline Development Group; GRADE: Grading of Recommendations Assessment, Development and Evaluation; IBD: inflammatory bowel disease; IM: intramuscular; IUD: intrauterine device; LNG: levonorgestrel; LNG-IUD: levonorgestrel-releasing intrauterine device; NET-EN: norethisterone enanthate; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; POC: progestogen-only contraceptive; POI: progestogen-only injectable contraception (i.e. DMPA and NET-EN); POP: progestogen-only pill; SC: subcutaneous; UPA: ulipristal acetate.

[a] GRADE assessment includes the quality categories of very low, low, moderate, and high. When a range is presented, the range reflects the GRADE quality assessment across important outcomes and/or across contraceptive methods. See the GRADE tables in the web annex for the outcomes explored.

1 Introduction

This document is part of the process for improving the quality of care in family planning. It is one of two evidence-based normative contraception guidelines which are also referred to as the "family planning cornerstones" of the World Health Organization (WHO). This guideline, *Medical eligibility criteria for contraceptive use* (MEC, now in its sixth edition), is the first cornerstone guideline and provides recommendations on the safety of various contraceptive methods when used in the context of particular health conditions and physiological characteristics. The first edition of the MEC was published in 1996. The second cornerstone guideline is *Selected practice recommendations for contraceptive use* (SPR, now in its fourth edition *[1]*); it provides recommendations on how to use contraceptive methods safely and effectively once they are deemed to be medically appropriate. These cornerstone guidelines can be adapted by Member States to guide the implementation of national family planning programmes.

There are two other cornerstone documents which provide guidance to health workers on how to apply the recommendations in the MEC and SPR in clinical settings: *Decision-making tool for family planning clients and providers (2)* and *Family planning: a global handbook for providers (3)*. Figure 1.1 illustrates how each of these four WHO documents is targeted at a particular audience and addresses a unique, yet complementary aspect of family planning.

1.1 Purpose

The goal of the MEC is to improve access to, and quality of, family planning services by providing recommendations that can be used for developing or revising national guidelines on the medical eligibility criteria for the use of specific contraceptive methods. The evidence-based recommendations presented here in the MEC do not indicate a "best" method that should be used in a particular medical context; rather, review of the recommendations allows for consideration of methods that could be used safely by people with certain health conditions (e.g. hypertension) or relevant characteristics (e.g. age).

1.2 Scope

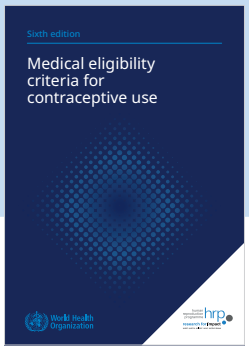
This sixth edition of the MEC includes recommendations relating to all hormonal contraceptives, intrauterine devices (IUDs), barrier methods (BARR), fertility-awareness-based (FAB) methods, coitus interruptus (CI), lactational amenorrhoea method (LAM), male and female sterilization (STER), and emergency contraception (EC).

1.3 Target audience

The intended audience for this publication is mainly policy-makers, family planning programme managers and the scientific community. The MEC is not meant to serve as the actual guidelines for national family planning and reproductive health programmes, but rather as a reference in the preparation of national- or facility-level guidelines for delivery of contraceptive services. The recommendations in this document are intended to be interpreted at the country and programme levels, in a manner that reflects the diversity of situations and settings in which contraceptives are provided (see section 6). While it is unlikely that the classification of categories in this document will change during this process, it is very likely that the application of these categories at country level will vary. In particular, the level of clinical knowledge and experience of various types of health workers and the resources available at the different service-delivery points will have to be taken into consideration.

Figure 1.1 The four WHO family planning cornerstones

Target audience: Policy-makers and programme managers

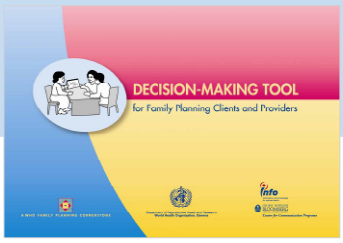


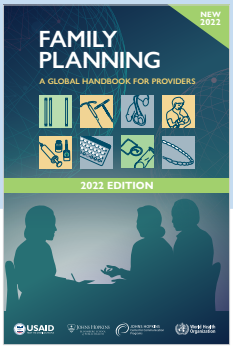
Medical eligibility criteria for contraceptive use
Recommendations on **who** can use contraceptive methods safely

Selected practice recommendations for contraceptive use
Recommendations on **how** to use contraceptive methods safely and effectively

These are evidence-based guidance and consensus-driven guidelines. They provide recommendations made by expert working groups based on an appraisal of relevant evidence. They are reviewed and updated in a timely manner.

Target audience: Providers of contraceptive counselling and services





Decision-making tool for family planning clients and providers

Family planning: a global handbook for providers

These are tools that incorporate the *Medical eligibility criteria,* the *Selected practice recommendations* and other consensus recommendations on how to meet the needs of the family planning client. They will be updated as the guidelines are updated or as other evidence warrants.

Process for assuring that the guidelines remain current:

1. Identify new, relevant evidence as soon as it becomes available through an ongoing comprehensive bibliographic search.
2. Critically appraise the new evidence.
3. Evaluate the new evidence in light of prior evidence.
4. Determine whether the newly synthesized evidence is sufficient to warrant an update of existing recommendations.
5. Provide electronic updates on WHO's reproductive health website (https://www.who.int/health-topics/contraception and http://www.who.int/hrp) as appropriate and determine the need to convene an expert working group to reassess guidelines formally.

1.4 Reproductive and sexual health care as a human right

The Programme of Action of the International Conference on Population and Development (ICPD) in 1994 defines reproductive health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes" *(4)*. The Programme of Action also states that the purpose of sexual health is "the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases". Recognizing the importance of agreements made at the ICPD and other international conferences and summits, the 1995 Beijing Declaration and Platform for Action defines reproductive rights in the following way:

> Reproductive rights embrace certain human rights that are already recognized in national laws, international human rights documents, and other relevant consensus documents. These rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number and spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health *(5)*.

In April 2024, in advance of the 30th Anniversary of the ICPD, at the United Nations headquarters in New York, United States of America, governments and United Nations funds, programmes and other entities, renewed their commitment and determination to accelerate the implementation of the original ICPD Programme of Action. Moreover, as part of this commitment, they reaffirmed their support for ensuring universal access to sexual and reproductive health (SRH) services and their determination to advance reproductive rights as key principles embedded within the United Nations 2030 Agenda for Sustainable Development *(6)*. Sustainable Development Goals (SDGs) 3 (Good health and well-being) and 5 (Gender equality) have targets that call for the following by 2030:

Target 3.7: Ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Target 5.6: Ensure universal access to sexual and reproductive health and rights (SRHR).

SRH services, including family planning information and services, are recognized not only as key interventions for improving the health of all people, but also as a human right. Access to contraceptive information and services is specifically guaranteed under international and regional human rights treaties, national constitutions and laws. These include the guarantee on the part of Member States to ensure timely and affordable access to good-quality SRH information and services, including contraception, which should be delivered in a way that ensures fully informed decision-making, respects dignity, autonomy, privacy and confidentiality, and supports individuals' needs and perspectives sensitively in the context of a client–provider partnership *(7)*. A rights-based approach to the provision of contraceptives espouses a holistic view of clients, which includes taking into account clients' SRH needs and considering all relevant eligibility criteria when helping clients choose and use a family planning method safely.

Evidence shows that the respect, protection and fulfilment of human rights contribute to positive health outcomes *(8)*. The provision of contraceptive information and services that respect individual privacy, confidentiality and informed choice, and which offer a wide range of safe contraceptive methods, increases people's satisfaction and supports their continued use of contraception *(9–12)*.

Delivering care in accordance with a client's human and reproductive rights is fundamental to the quality of care. The development of international norms for medical eligibility criteria and practice recommendations for contraceptive use contributes to improving the quality of reproductive health care, along with other aspects of care. Many family planning programmes have included health procedures that reflect high standards of public health and clinical practice – such as screening and treatment of cervical cancer, anaemia and sexually transmitted infections (STIs), and the promotion of breastfeeding and

cessation of smoking – but these should not be seen as eligibility requirements for specific contraceptive methods. Such procedures should be strongly encouraged if the human and material resources are available to carry them out, but they should not be seen as prerequisites for the acceptance and use of family planning methods since they are not necessary to establish eligibility for the use or continuation of a particular method.

1.5 Contraceptive choice and informed consent

While this document addresses medical eligibility criteria for contraceptive use, certain social, behavioural and other non-medical criteria – particularly client preference – must also be taken into account. **Informed consent** refers to the process of providing clients with sufficient information to enable them to make a voluntary and informed decision about whether to undergo or forego an intervention or procedure, provided that the information is given in a form that can be understood by the client. On the other hand, **informed choice** is achieved if the information provided about the benefits, risks and harms of all the options available is easy to understand and aligns with the clients' goals and values, and if the health worker provides impartial assistance with decision-making.

Providing contraceptive choices to clients in a way that respects and fulfils their human rights requires both informed consent and informed choice. Clients' choices are made at a particular time, in a particular societal and cultural context. However, these choices are often taken away from them or limited by direct or indirect social, economic or cultural factors, making these choices complex, multifactorial and subject to change. Decision-making for contraceptive methods usually requires making trade-offs among the advantages and disadvantages of different methods, and these vary according to individual circumstances, perceptions and interpretations. Factors to consider when helping a client to choose a particular contraceptive method include the characteristics and preferences of the user, the baseline risk of disease, the adverse-effects profile of different products, and their costs and availability.

This document does not provide recommendations about which specific product or brand to use after selecting a particular type of contraceptive method. Instead, it provides recommendations for whether women with specific medical conditions or medically relevant physiological or personal characteristics are eligible to use various contraceptive methods. Decisions about which methods to use should also consider clinical judgement and user preferences.

1.6 Quality of care and access to products

The following service-delivery criteria are universally relevant to the initiation and follow-up for all contraceptive methods.

- Clients must be given adequate information to help them make an informed, voluntary choice about contraceptive method to use, and should not be subjected to coercion, violence or discrimination of any kind. Informed consent must also be obtained, for all methods of contraception.
- To obtain informed consent, the following information should be provided about each contraceptive method:
  - the relative effectiveness of the method;
  - how to correctly use the method;
  - how the method works and any common side-effects;
  - potential health risks and benefits of the method;
  - signs and symptoms that would necessitate a return to the clinic;
  - information on return to fertility after discontinuing method use; and
  - information on protection against STIs.

The above information should be presented using language and formats that can be easily understood and accessed by the client. There should be an opportunity for clients to ask questions and they should be answered completely.

- Obtaining a client's informed consent for any contraceptive method is of paramount importance. A person may consult their partner and/or others about the decision to use contraception, and may consider their views, but the decision cannot be made for that person by a partner, another family member, a health worker, a community leader or anyone else. Family planning service providers have a duty to make sure that the decision for or against the use of contraception (or the use of a particular method) is made by the client and that the client is not pressured or coerced by anyone.
- In order for a facility to offer contraceptive methods that require surgical approaches, insertion/placement, fitting and/or removal by a trained health worker (i.e. sterilization, implants, IUDs, diaphragms, cervical caps), the facility must have appropriately trained personnel and must be adequately equipped, accessible and able to ensure visual and auditory privacy to clients during the procedure. Appropriate infection-prevention procedures must be followed.
- Adequate and appropriate equipment and supplies need to be maintained and held in stock (e.g. contraceptive commodities and supplies for infection-prevention procedures).
- Health workers should be given guidelines, job aids, client cards or other data-capturing tools.

1.7 Effectiveness of methods

Contraceptive choice is in part dependent on the effectiveness of the contraceptive method in preventing unplanned pregnancy, which is, in turn (for some methods), dependent not only on the protection afforded by the method itself, but also on how consistently and correctly the client uses it. Table 1.1 compares the percentage of contraceptive users experiencing an unintended pregnancy during the first year of contraceptive method use when the method is used perfectly (consistently and correctly) and when it is used typically (assuming occasional non-use and/or incorrect use). Consistent usage and correct usage can both vary greatly based on client characteristics such as age, income, desire to prevent or delay pregnancy, and culture. The effectiveness of methods that depend on consistent and correct usage by clients (e.g. condoms and pills) can vary for different individuals or couples. Most people tend to be more effective users as they become more experienced with a method. However, programmatic features, such as the availability and cost of services and the quality of counselling, also have a profound effect on how effectively (consistently and correctly) the client will use the method.

Table 1.1 **Percentage of users becoming pregnant during the first year of contraceptive use in the United States of America (USA) (perfect use and typical use) and internationally (typical use)**

	% of users experiencing an unintended pregnancy within the first year of contraceptive use			
Method	**Perfect use[a]**	**Typical use, USA[b] (bold indicates population-based estimate)**	**Typical use, international population-based survey estimates[c]**	**Effectiveness category**
Implant	0.1	0.1	**0.3**	Category 1 < 1 pregnancy per 100 women in 1 year with either perfect or typical use
Vas surgery	0.1	0.15		
Fallopian tube surgery	0.5	0.5		
Intrauterine contraceptives				
LNG-releasing IUDs[d]	0.3	0.4		
Cu-IUD	0.6	0.8	**1**	
Depot medroxyprogesterone acetate (DMPA, Depo-Provera) injectable	0.2	**4**	**2**	Category 2 1–7 pregnancies per 100 women in 1 year with typical use
Oral contraceptive pills (combined or progestin-only)	0.3	**7**	**6**	
Transdermal patches	0.3	7		
Contraceptive vaginal rings (CVRs)	0.3	7		
Fertility-awareness-based (FAB) methods				This group of methods spans Categories 2 and 3
Sensiplan	0.4	2		
Natural Cycles		7		
Clue	3	8		
Standard Days	5	13		
Billings	3	23		
Calendar rhythm	N/A	**15**	**19**	
External (male) condom	2	**13**	**9**	Category 3 More than 8 pregnancies per 100 women in 1 year with typical use
Sponge (both parous and nulliparous)[f]	12	17		
Diaphragm[g]	16	17		
Withdrawal	4	**20**	**17**	
Internal (female) condom	5	21		
Vaginal pH regulator (Phexxi)	12	21		
Spermicides	16	21		
Cervical cap (FemCap)	22	22		

Method	% of users experiencing an unintended pregnancy within the first year of contraceptive use			Effectiveness category
	Perfect use[a]	Typical use, USA[b] (bold indicates population-based estimate)	Typical use, international population-based survey estimates[c]	
No method[h]	85	85		
Emergency contraceptives (EC): Use of emergency contraceptive pills (ECP) or placement of an IUD after unprotected intercourse substantially reduces the risk of pregnancy.				
Lactational amenorrhea method: LAM is a highly effective, temporary method of contraception.[i]				

IUD: intrauterine device; LNG: levonorgestrel.

[a] Among couples who initiate use of a method (not necessarily for the first time) and who use it perfectly (both consistently and correctly) for the first year, the percentage who experience an accidental pregnancy if they do not stop use for any other reason. Most estimates in this column come from clinical data; see text of the source document for the derivation of the estimate for each method.

[b] Among couples who initiate use of a method (not necessarily for the first time), the percentage who experience an accidental pregnancy during the first year of typical use if they do not stop use for any reason other than pregnancy. Estimates of the probability of pregnancy during the first year of typical use for withdrawal, the male condom, the pill, and Depo-Provera are taken from the 2006–2010 National Survey of Family Growth (NSFG) corrected for under-reporting of abortion. See text for the derivation of estimates for the other methods.

[c] Among couples who initiate use of a method (not necessarily for the first time), the percentage who experience an accidental pregnancy during the first year if they do not stop use for any reason other than pregnancy. Estimates in this column are based on population-based Demographic and Health Survey data from 15 countries, not adjusted for under-reporting of abortion. All estimates in this column are calculated using life tables. See text of the source document for details.

[d] For details rates for specific LNG-releasing IUDs, see text of the source document.

[e] Multiple FAB methods exist with varying features; a subset are shown here. See Chapter 15 of the source document for additional detail.

[f] Estimates are for all sponge users. For nulliparous women, the typical-use pregnancy rate is 14% and the perfect use pregnancy rate is 9%. For parous women the typical use pregnancy rate is 27% and the perfect use pregnancy rate is 20%.

[g] With spermicidal cream or jelly.

[h] This estimate represents the percentage who would become pregnant within 1 year without using contraception. See text of the source document.

[i] However, to maintain effective protection against pregnancy, another method of contraception must be used as soon as menstruation resumes, the frequency or duration of breastfeeds is reduced, bottle feeds are introduced, or the baby reaches 6 months of age.

Note: Estimates in **bold** are from population-based surveys.

Source: Reproduced with permission from Bradley et al., 2023 *(13)*.

1.8 Medical conditions that expose a woman to increased risk as a result of unintended pregnancy

Women with medical conditions that may make unintended pregnancy an unacceptable health risk should be advised that, because of their relatively higher typical-use failure rates, sole use of either barrier methods for contraception or behaviour-based methods of contraception may not be the most appropriate choice for them. These conditions are noted in Box 1.1.

Box 1.1 Medical conditions that expose a woman to increased health risk as a result of unintended pregnancy

- Breast cancer
- Complicated valvular heart disease
- Diabetes: insulin-dependent; or with nephropathy/retinopathy/neuropathy or other vascular disease; or of > 20 years' duration
- Endometrial or ovarian cancer
- Epilepsy
- High blood pressure (systolic > 160 mm Hg or diastolic > 100 mm Hg)[a]
- HIV (WHO stages 1–4)[b]
- Ischaemic heart disease
- Malignant gestational trophoblastic disease
- Malignant liver tumours (hepatoma) and hepatocellular carcinoma of the liver (HCA)
- Schistosomiasis with fibrosis of the liver
- Severe (decompensated) cirrhosis
- Sickle cell disease
- STI[b]
- Stroke
- Systemic lupus erythematosus (SLE)
- Thrombogenic mutations
- Tuberculosis

1.9 Return to fertility

Among contraceptive methods, only male and female sterilization are regarded as permanent (i.e. ending the possibility of natural conception). All individuals and couples considering these methods should be counselled accordingly. No other methods result in permanent infertility.

All other contraceptive methods are reversible, usually with prompt return to fertility upon discontinuation, with the exception of injectable depot medroxyprogesterone acetate (DMPA) and norethisterone enanthate (NET-EN). Women should be informed that there can be a delay of up to one year in the return to ovulation after discontinuation of DMPA (given intramuscularly or subcutaneously) and NET-EN *(14–18)*.

1.10 STIs and contraception: dual protection

In addition to the imperative of international norms to ensure quality of care in the provision of contraceptive services, the social, cultural and behavioural context of each client must also be considered. Given that STIs and HIV are among the most common communicable conditions affecting health and well-being, preventing the transmission of these infections among sexually active clients of reproductive age – including those using contraception services – warrants special consideration. When there is a risk of transmission, such as in the context of high prevalence rates of HIV and other STIs in the geographical area, or individual risk behaviour (e.g. multiple sexual partners without use of condoms), it is important that health workers offer information on safer sexual practices that will help prevent transmission as well as pregnancy. Health workers should strongly recommend dual protection to all persons at significant risk, either through the simultaneous use of condoms with another contraceptive method or through the consistent and correct use of condoms alone. Women and men seeking contraceptive advice must always be reminded of the importance of using condoms to prevent the transmission of HIV and other STIs, and such use should be encouraged and facilitated where appropriate. When used correctly and consistently, condoms offer one of the most effective methods of protection against STIs, including HIV.

[a] Throughout this document, blood pressure measurements are given in mm Hg. To convert to kPa, multiply by 0.1333 (e.g. 120/80 mm Hg = 16.0/10.7 kPa).

[b] Dual protection is strongly recommended for protection against HIV/AIDS and other STIs when a risk of STI/HIV transmission exists. This can be achieved through the simultaneous use of condoms with other methods, or the consistent and correct use of condoms alone.

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[2] All references were accessed on 25 April 2025.

2 Methods: summary of the development of the MEC

This document builds on a process initiated in 1994 to develop the first edition of the MEC. The process involved comparing the medical eligibility criteria used by different agencies for various contraceptives, preparing summaries of published medical and epidemiological literature relevant to these criteria, and preparing a draft classification for review by a larger group of experts and agencies. Two expert Working Group meetings were organized by WHO, in March 1994 and May 1995, to review the background classifications and to formulate recommendations. The first edition of the MEC was published in 1996.

Since then, the guideline has now been revised and updated five times. The previous (fifth) edition was published in 2015. For each revision, a multidisciplinary expert Working Group (called the Guideline Development Group [GDG] for recent editions) was assembled to review newly published evidence pertaining to the topics addressed in the guideline. Moreover, with each revision, the Working Group or GDG used the opportunity to consider inclusion of new medical conditions and new contraceptive methods, as appropriate. After the fourth and fifth editions, interim guidance statements were also issued with updated recommendations on specific topics for which significant new evidence had emerged.

The groups responsible for the development of this sixth edition of the MEC included: a WHO Secretariat Team, a Guideline Steering Group (GSG), an Evidence Synthesis Team (EST) (including a guideline methodologist), a Guideline Development Group (GDG) and an External Review Group (ERG). For the names of the members of all these groups, see the Acknowledgements at the beginning of this publication, and for details of declared academic interests see Annex 1.

The Continuous Identification of Research Evidence (CIRE) system *(1)* was used to identify recommendations from the fifth edition of the MEC for which new evidence was available. Next, the WHO Secretariat Team disseminated an online survey to a broad group of experts and stakeholders in January–February 2022; completed surveys were received from 335 individuals from across all six WHO regions. The findings of both processes were compiled and presented to the GDG at the first GDG meeting, which was held on 8–10 November 2022. At this scoping meeting, the GDG was tasked with prioritizing the MEC topics for review and consideration at the second GDG meeting, to be convened at a later date, such that there would be time in between the meetings to prepare systematic reviews on those prioritized topics. The six topics prioritized for review by the GDG for the sixth edition of the MEC are presented in Box 2.1.

Box 2.1 Prioritized topics reviewed by the GDG for the sixth edition of the MEC

Selection of topics for review using the GRADE process for the MEC sixth edition:

- Existing topics with new evidence identified or controversial among stakeholders (four topics):
  - progestogen-only contraceptive (POC) use among breastfeeding women
  - intrauterine device (IUD) use among breastfeeding women
  - hormonal contraceptive use among women using antiretroviral therapy (ART)
  - repeated use of emergency contraceptive pills (ECPs).
- New topics to consider adding to the MEC for the sixth edition (two topics):
  - HIV pre-exposure prophylaxis (PrEP)
  - Inflammatory bowel disease (IBD).

All other existing recommendations from the MEC fifth edition (approximately 2000 recommendations) were reaffirmed by the GDG in July 2024.[a]

CIRE: Continuous Identification of Research Evidence; GRADE: Grading of Recommendations Assessment, Development and Evaluation.

[a] Evidence continuously monitored using the CIRE system *(1)*. Topics not prioritized for update for the sixth edition.

For the six prioritized topics, the GDG developed questions during the meeting in November 2022 using the "PICO" format (i.e. questions with specified populations, interventions, comparators and outcomes) to serve as the framework for conducting the systematic reviews and compiling the Grading of Recommendations Assessment, Development and Evaluation (GRADE) evidence tables; these tasks were then undertaken by the EST and the guideline methodologist, respectively (refer to the web annex for the PICO questions and the GRADE tables). The written and orally presented systematic reviews and GRADE evidence profiles served as the basis for the GDG's deliberations.

WHO convened the second and final GDG meeting on 23–25 July 2024, to review the evidence for the prioritized topics and, where appropriate, develop or revise specific recommendations for this sixth edition of the MEC. The GRADE approach to evidence review is described on the GRADE Working Group's website *(2)*. To arrive at a decision on which MEC category to designate (within the range of 1–4; see section 3 of this publication), the GDG considered the GRADE evidence profiles and the evidence-to-decision (EtD) framework domains. Reviews of evidence on the values and preferences of contraceptive users and health workers, as well as the findings of a large survey, were used to incorporate these considerations into the MEC guideline. The GDG endorsed an approach to client preferences and values that prioritizes the availability of a wide range of contraceptive options and the removal of unnecessary medical barriers.

Through consensus, the GDG members arrived at new and revised recommendations, as well as upholding most of the existing recommendations using the categories 1–4. For the topics they reviewed during the final GDG meeting in 2024 (see Box 2.1), the GDG considered the potential benefits and risks of contraceptive method use with respect to each of the medical conditions or personal characteristics assessed.

A draft of the entire revised MEC document was sent to the ERG, which comprised nine experts who did not participate in the GDG meeting. Comments received from these reviewers were addressed and incorporated into this guidance by the WHO Secretariat Team as appropriate. The final version of this document was approved by the Guidelines Review Committee (GRC) on 10 February 2025.

Further details describing the purpose and methods for this edition and each previous revision of the MEC are presented in Annex 2.

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2. GRADE [website]. The GRADE Working Group; 2025 (https://www.gradeworkinggroup.org/).

[3] All references were accessed on 2 July 2025.

3 How to use this document and the MEC categories

The present document is intended for use by policy-makers, family planning programme managers and the scientific community. It aims to provide guidance to national family planning and reproductive health programmes in the preparation of guidelines for delivery of contraceptive services. It is not meant to serve as the actual guidelines but rather as a reference.

The guidance in this document is intended for interpretation at country and programme levels in a manner that reflects the diversity of situations and settings in which contraceptives are provided. While it is unlikely that the classification of categories in this document (using a scale of 1–4, see Box 3.1 below) would change during this process, it is very likely that the application of these categories at country level will vary. In particular, the level of clinical knowledge and experience of various types of health workers providing contraceptive services and the resources available at the service-delivery point will have to be taken into consideration.

Recommendations are presented in tables according to the contraceptive methods or types/groups of methods in the guideline (each subsection of section 5) and according to "conditions" – defined as either a known pre-existing medical/pathological condition (e.g. diabetes, hypertension) or a medically relevant individual characteristic (e.g. age, history of pregnancy) – which are detailed in the rows of the tables.

It is envisaged that national and institutional health-care and service-delivery environments will decide the most suitable means for screening for the relevant conditions according to their national clinical guidelines. Taking a client history will often be the most appropriate approach. A family planning provider may want to consult an expert in the underlying condition.

Box 3.1 MEC categories for contraceptive use

Category 1	A condition for which there is no restriction for the use of the contraceptive method.
Category 2	A condition where the advantages of using the contraceptive method generally outweigh the theoretical or proven risks.
Category 3	A condition where the theoretical or proven risks usually outweigh the advantages of using the contraceptive method.
Category 4	A condition which represents an unacceptable health risk if the contraceptive method is used.

3.1 Initiation and continuation

The medical eligibility criteria for the initiation and continuation of all contraceptive methods are used in the evaluation of a woman's eligibility to use that method, based on how safe it is for her to use, in light of her medical conditions (if any) and/or physiological characteristics. The assessment of continuation criteria is clinically relevant whenever a woman develops the condition while she is using the method. Where medical eligibility for initiation and continuation of a contraceptive method differs, these differences are noted in the columns of the tables for each contraceptive method (I = initiation; C = continuation). Where I and C are not denoted, the category is the same for initiation and continuation of use.

As shown in a simplified template (see Table 3.1) of the tables for each contraceptive method (provided in full in section 5), the first column indicates the conditions (each in a separate row). Several conditions are subdivided to differentiate between varying degrees of the condition. The second column classifies the condition for initiation and/or continuation into one of the four MEC categories, as described in section 3.2. The third column provides space for any necessary clarifications or presentation of evidence regarding the classification.

Table 3.1 Template of the contraceptive method tables in section 5

Type of contraceptive		
Condition	**MEC Category** **I = initiation, C = continuation**	**Clarifications/evidence**
Condition group		
Specific condition	Condition classified as Category 1, 2, 3 or 4 NB. Different categories are used for fertility-awareness-based (FAB) methods and surgical sterilization; these are described at the beginning of the relevant sections.	Clarifications and evidence regarding the classification

3.2 Using the MEC categories in practice

Categories 1 and 4 are self-explanatory. Classification of a method/condition as Category 2 indicates the method can generally be used, but careful follow-up may be required. However, provision of a method to a woman with a condition classified as Category 3 requires careful clinical judgement and access to clinical services; for such a woman, the severity of the condition and the availability, practicality and acceptability of alternative methods should be considered. As a rule of thumb, when a method/condition is classified as Category 3, use of that method is not usually recommended unless other more appropriate methods are not available or acceptable. If the method is provided, careful follow-up will be required.

Where resources for clinical judgement are limited, such as in community-based services, the four-category classification framework can be simplified into two categories. With this simplification, a classification of Category 1 or 2 indicates that a woman can use a method, and a classification of Category 3 or 4 indicates that a woman is not medically eligible to use the method (see Table 3.2).

Table 3.2 Interpretation and application of the categories in practice

MEC Category	With good resources for clinical judgement	With limited resources for clinical judgement
1	Use method in any circumstances	**Yes** (Use the method)
2	Generally, use the method	
3	Use of method not usually recommended unless other more appropriate methods are not available or not acceptable	**No** (Do not use the method)
4	Method not to be used	

4 Summary of changes within the sixth edition of the MEC

The tables in this section highlight the changes in this sixth edition of the MEC as compared with the recommendations in the fifth edition. These include changes to MEC categories, recommendations for new conditions included in this edition, and changes to the labelling of certain conditions (in order to be consistent with current clinical practice or for clarity).

Table 4.1 Summary of changes from the fifth edition to the sixth edition of the MEC (changes are highlighted by use of bold on the new conditions or changes in the condition name, and bold blue font on the new or changed MEC category numbers)

	Combined hormonal contraceptives (CHC)		Progestogen-only contraceptives (POC)			Intrauterine devices (IUDs)	
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implant**	**Cu-IUD**	**LNG-IUD**
Breastfeeding							
a) < 6 weeks postpartum	4	4	2	**2**	2		
b) 6 weeks to < 6 months (primarily breastfeeding)	3	3	1	1	1		
c) ≥ 6 months postpartum	2	2	1	1	1		
HIV pre-exposure prophylaxis (PrEP)							
a) Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs): **tenofovir-emtricitabine (TDF/FTC)**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b) Non-nucleoside/nucleotide reverse transcriptase inhibitors (NNRTIs): **dapivirine (DPV) ring**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
c) Integrase inhibitors: **cabotegravir (CAB)**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
High risk of HIV New guidance on this topic was issued in 2019 *(1, 2)*	1	1	1	**1**	1	**1[a]**	**1[a]**

	Combined hormonal contraceptives (CHC)		Progestogen-only contraceptives (POC)			Intrauterine devices (IUDs)			
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implant**	**Cu-IUD**		**LNG-IUD**	
Antiretroviral therapy (ART)						**I**	**C**	**I**	**C**
a) NRTIs:									
abacavir (ABC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
tenofovir (TDF)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
zidovudine (AZT)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
lamivudine (3TC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
didanosine (DDI)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
emtricitabine (FTC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
stavudine (D4T)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
b) NNRTIs:									
efavirenz (EFV)	2[a]	2[a]	2[a]	1 = DMPA; 2 = NET-EN[a]	2[a]	2/3[a]	2[a]	2/3[a]	2[a]
etravirine (ETR)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
nevirapine (NVP)	**1**	**1**	**1**	**1**	**1**	2/3[a]	2[a]	2/3[a]	2[a]
rilpivirine (RPV)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
c) Protease inhibitors:									
ritonavir-boosted atazanavir (ATV/r)	**1**	**1**	**1**	**1**	**1**	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir-boosted lopinavir (LPV/r)	**1**	**1**	**1**	**1**	**1**	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir-boosted darunavir (DRV/r)	**1**	**1**	**1**	**1**	**1**	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir (RTV)	**1**	**1**	**1**	**1**	**1**	2/3[a]	2[a]	2/3[a]	2[a]
d) Integrase inhibitors:									
raltegravir (RAL)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
dolutegravir (DTG)	**1**	**1**	**1**	**1**	**1**	**2/3[a]**	**2[a]**	**2/3[a]**	**2[a]**

COC: combined oral contraceptives; CIC: combined injectable contraceptives; CVR: combined contraceptive vaginal ring; Cu-IUD: copper-bearing IUD; DMPA: depot medroxyprogesterone acetate (intramuscular and sub-cutaneous) injectable; ETG: etonogestrel; IUD: intrauterine device; LNG: levonorgestrel; LNG-IUD: levonorgestrel-releasing intrauterine device; NET-EN: norethisterone enanthate injectable contraceptive; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; P: combined contraceptive patch; POP: progestogen-only pills.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

Table 4.2 **Emergency contraceptive pills (ECPs) (changes are highlighted by use of bold on the new conditions or changes in the condition name, and bold blue font on the new or changed MEC category numbers)**

Condition	COC	LNG	UPA
CYP3A4 inducers (e.g. rifampicin, phenytoin, phenobarbital, carbamazepine, efavirenz, fosphenytoin, oxcarbazepine, primidone, rifabutin, St John's wort / *Hypericum perforatum*)	1[a]	1[a]	1[a]
ECP use more than once in a menstrual cycle	1	1	1

COC: combined oral contraceptives; CYP3A4: cytochrome P450 3A4 enzyme; LNG: levonorgestrel; UPA: ulipristal acetate.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

References for section 4[4]

1. Contraceptive eligibility for women at high risk of HIV: guidance statement: recommendations on contraceptive methods used by women at high risk of HIV. Geneva: World Health Organization; 2019 (https://iris.who.int/handle/10665/326653). Licence: CC BY-NC-SA 3.0 IGO

2. WHO revises recommendations on hormonal contraceptive use for women at high HIV risk [news release]. World Health Organization; 29 August 2019 (https://www.who.int/news/item/29-08-2019-who-revises-recommendations-on-hormonal-contraceptive-use-for-women-at-high-hiv-risk).

[4] All references were accessed on 2 July 2025.

5 Recommendation tables

5.1 Combined hormonal contraceptives (CHCs)

5.1.1 Combined oral contraceptives (COCs)

The recommendations in this guideline refer to low-dose COCs containing ≤ 35 µg ethinyl estradiol combined with a progestogen.

Venous thrombosis is rare among women of reproductive age. All COCs are associated with an increased risk for venous thromboembolism (VTE) compared with non-use. Several studies have found differences in the risk for VTE associated with COCs containing different types of progestogens *(1)*. Current evidence suggests that COCs containing levonorgestrel, norethisterone and norgestimate are associated with the lowest risk *(1)*. The absolute differences, however, are very small. Limited data do not suggest that the small absolute risk for arterial events associated with COC use varies according to the type of progestogen *(1, 2, 3, 4–18)*.

Recommendations in this guideline are the same for all COC formulations, irrespective of their progestogen content.

5.1.2 Combined injectable contraceptives (CICs)

CICs provide for the release of a natural estrogen plus a progestogen and act through the inhibition of ovulation *(19)*. Two CIC formulations, both given at four-week intervals, are considered here: Cyclofem, composed of medroxyprogesterone acetate 25 mg plus estradiol cypionate 5 mg; and Mesigyna, composed of norethisterone enanthate 50 mg plus estradiol valerate 5 mg.

CICs contain estradiol, a naturally occurring estrogen. Estradiol is less potent, has a shorter duration of effect and is more rapidly metabolized than the synthetic estrogens used in other contraceptive formulations such as COCs, the combined contraceptive patch (P) and the combined contraceptive vaginal ring (CVR). These differences imply that the type and magnitude of estrogen-related side-effects associated with CICs may be different from those experienced by COC/P/CVR users. In fact, short-term follow-up studies of CICs have shown little effect on blood pressure, haemostasis and coagulation, lipid metabolism and liver function in comparison with COCs *(19)*. As CICs are administered by injection, the first-pass metabolism by the liver is avoided, thereby minimizing estradiol's effect on the liver.

However, CICs are a relatively new contraceptive method, and there are few epidemiological data on their long-term effects. There is also the concern that, while the effect of the hormonal exposure associated with use of COCs and progestogen-only pills (POPs) can be reduced immediately by discontinuing their use, this is not the case with injectables, for which the effect continues for some time after the last injection.

Pending further evidence, the Guideline Development Group (GDG) concluded that the evidence available for COCs applies to CICs in many but not all instances. Therefore, the GDG assigned MEC categories for CICs somewhere between the categories for COCs and POPs. However, for severe pathologies (e.g. ischaemic heart disease), the classification of conditions was the same as for COCs. The assigned categories should, therefore, be considered a preliminary, best judgement, which will be re-evaluated as new data become available.

5.1.3 Combined contraceptive patch (P) and combined contraceptive vaginal ring (CVR)

The patch and CVR are relatively new contraceptive methods. Limited information is available on the safety of these methods among women with specific medical conditions. Moreover, epidemiological data on the long-term effects of the patch and CVR use were not available for the GDG to review. Most of the available studies received support from the manufacturers of these methods.

According to available evidence, the patch provides a comparable safety and pharmacokinetic profile to COCs with similar hormone formulations *(20, 21)*. Reports of transient, short-term breast discomfort

and skin-site reactions were greater among patch users; however, fewer than 25% of users experienced these events *(20)*. Limited evidence suggests the effectiveness of the patch may be lower in women weighing 90 kg or more *(20)*.

According to available evidence, in healthy women the CVR provides a comparable safety and pharmacokinetic profile and has similar effects on ovarian function to COCs with similar hormone formulations *(20, 21)*. Evidence from use in obese women (body mass index [BMI] ≥ 30 kg/m^2) found that weight gain for women in this category was not different between CVR users and COC users *(20)*. Limited evidence from use in women after medical and surgical abortion found no serious adverse events and no infection related to use during three cycles of follow-up post-abortion *(22)*, and limited evidence on women with low-grade squamous intraepithelial lesions (SIL) found that use of the CVR did not worsen the condition *(20)*.

Pending further evidence, the GDG concluded that the evidence available for COCs applies to the patch and CVR, and that therefore these methods should be assigned the same categories as COCs. The assigned categories should, therefore, be considered a preliminary, best judgement, which will be re-evaluated as new data become available.

5.1.4 Recommendations for CHCs

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Personal characteristics and reproductive history					
Pregnancy	NA	NA	NA	NA	**Clarification:** Use of COCs, P, CVR or CICs is not required. There is no known harm to the woman, the course of her pregnancy, or the fetus if COCs, P, CVR or CICs are accidentally used during pregnancy.
Age[b]					**Evidence:** Evidence about whether CHC use affects fracture risk is inconsistent, although 3 recent studies show no effect. CHC use may decrease bone mineral density (BMD) in adolescents, especially in those choosing very-low-dose formulations (COCs containing < 30 µg ethinyl estradiol). CHC use has little to no effect on BMD in premenopausal women and may preserve bone mass in those who are perimenopausal. BMD is a surrogate marker for fracture risk that may not be valid for premenopausal women, and which, therefore, may not accurately predict current or future (postmenopausal) fracture risk *(23, 24)*.
a) Menarche to < 40 years	1	1	1	1	
b) ≥ 40 years	2	2	2	2	

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Parity					
a) Nulliparous	1	1	1	1	
b) Parous	1	1	1	1	
Breastfeeding (BF)					**Evidence:** Clinical studies demonstrate conflicting results regarding effects on BF continuation or exclusivity in women exposed to COCs during lactation. No consistent effects on infant growth or illness have been reported *(25)*. Adverse health outcomes or manifestations of exogenous estrogen in infants exposed to combined contraceptives through breast-milk have not been demonstrated; however, studies have been inadequately designed to determine whether a risk of either serious or subtle long-term effects exists.
a) < 6 weeks postpartum	4	4	4	4	
b) ≥ 6 weeks to < 6 months post-partum (primarily BF)	3	3	3	3	
c) ≥ 6 months postpartum	2	2	2	2	
Postpartum (in non-BF women)					
Although the risk of venous thromboembolism (VTE) is the same in BF and non-BF women, use of CHCs is generally not recommended prior to 6 months postpartum in women who are BF.					
a) < 21 days					**Clarification:** For women up to 6 weeks postpartum with other risk factors for VTE (e.g. immobility, transfusion at delivery, BMI > 30 kg/m^2, postpartum haemorrhage, immediate post-caesarean delivery, pre-eclampsia, smoking), use of CHCs may pose an additional increased risk for VTE. **Evidence:** VTE risk is elevated during pregnancy and the postpartum period; this risk is most pronounced in the first 3 weeks after delivery, declining to near baseline levels by 42 days postpartum. Use of CHCs, which increases the risk of VTE in healthy reproductive-age women, may pose an additional risk during this time. Risk of pregnancy during the first 21 days postpartum is very low but increases after that time in non-BF women; ovulation before first menses is common *(26)*.
without other risk factors for VTE	3	3	3	3	
with other risk factors for VTE	4	4	4	4	
b) ≥ 21 days to 42 days:					
without other risk factors for VTE	2	2	2	2	
with other risk factors for VTE	3	3	3	3	
c) > 42 days	1	1	1	1	

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
Post-abortion					**Clarification:** COCs, P, CVR or CICs may be started immediately post-abortion. **Evidence:** Women who started taking COCs immediately after first-trimester medical or surgical abortion did not experience more side-effects or adverse vaginal bleeding outcomes or clinically significant changes in coagulation parameters compared with women who used a placebo, an intrauterine device (IUD), a non-hormonal contraceptive method, or delayed COC initiation *(27)*. Limited evidence on women using the CVR immediately after first-trimester medical or surgical abortion indicated no serious adverse events and no infection related to CVR use during 3 cycles of follow-up post-abortion *(22)*.
a) First trimester	1	1	1	1	
b) Second trimester	1	1	1	1	
c) Immediate post-septic abortion	1	1	1	1	
Past ectopic pregnancy[b]	1	1	1	1	
History of pelvic surgery	1	1	1	1	
Smoking					**Evidence:** COC users who smoked were at increased risk of cardiovascular disease (CVD), especially myocardial infarction (MI), compared with those who did not smoke. Studies also showed an increased risk of MI with increasing number of cigarettes smoked per day *(14, 15, 28–37)*.
a) Age < 35 years	2	2	2	2	
b) Age ≥ 35 years:					
< 15 cigarettes/day	3	3	3	2	
≥ 15 cigarettes/day	4	4	4	3	

COC = combined oral contraceptive, P = combined contraceptive patch
CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
Obesity					**Evidence:** Obese women who use COCs are more likely to experience VTE than obese women who do not use COCs. The absolute risk of VTE in healthy women of reproductive age is small. Limited evidence suggests that obese women who use COCs do not have a higher risk of acute MI or stroke than obese non-users *(38)*. Limited evidence suggests obese women are no more likely to gain weight after 3 cycles of using CVR or COCs than overweight or normal-weight women. A similar weight gain during 3 months was noted in both the COC group and the CVR group across all BMI categories *(39)*. Overall, evidence suggests that contraceptive effectiveness is maintained among obese CHC users; however, among women with very high BMI using COC, evidence is inconsistent *(39)*. No association was found between pregnancy risk and BMI among P users *(39)*. The effectiveness of the P decreased among women who weighed > 90 kg in 1 study *(39)*.
a) ≥ 30 kg/m^2 BMI	2	2	2	2	
b) Menarche to < 18 years and ≥ 30 kg/m^2 BMI	2	2	2	2	
Blood pressure measurement unavailable	NA	NA	NA	NA	**Clarification:** It is desirable to have blood pressure measurements taken before initiation of COC, P, CVR or CIC use. However, in some settings, blood pressure measurements are unavailable. In many of these settings, pregnancy-related morbidity and mortality risks are high, and COCs, P, CVR or CICs may be among the few methods widely available. In such settings, women should not be denied use of COCs, P, CVR or CICs simply because their blood pressure cannot be measured.

COC = combined oral contraceptive, P = combined contraceptive patch
CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Cardiovascular disease (CVD)					
Multiple risk factors for arterial CVD (e.g. older age, smoking, diabetes, hypertension and known dyslipidaemias)	3/4	3/4	3/4	3/4	**Clarification:** When a woman has multiple major risk factors, any of which alone would substantially increase the risk of CVD, use of COCs, P, CVR or CICs may increase her risk to an unacceptable level. However, a simple addition of categories for multiple risk factors is not intended; for example, a combination of 2 risk factors assigned a Category 2 may not necessarily warrant a higher MEC category.
Hypertension					
For all categories of hypertension, classifications are based on the assumption that no other risk factors for CVD exist. When multiple risk factors do exist, the risk of CVD may increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.					
a) History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	3	3	3	3	**Clarification:** Evaluation of cause and level of hypertension is recommended, as soon as feasible. **Evidence:** Women who did not have a blood pressure check before initiation of COC use had an increased risk of acute MI and stroke *(10, 16, 17, 40, 41)*.
b) Adequately controlled hypertension, where blood pressure CAN be evaluated	3	3	3	3	**Clarification:** Women adequately treated for hypertension are at reduced risk of acute MI and stroke compared with untreated women. Although there are no data, COC, P, CVR or CIC users with adequately controlled and monitored hypertension should be at reduced risk of acute MI and stroke compared with untreated hypertensive COC, P, CVR or CIC users.

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
c) Elevated blood pressure levels (properly taken measurements):					**Evidence:** Among women with hypertension, COC users were at increased risk of stroke, acute MI and peripheral arterial disease compared with non-users. Discontinuation of COCs in women with hypertension may improve blood pressure control *(42)*.
systolic 140–159 or diastolic 90–99 mm Hg	3	3	3	3	
systolic ≥ 160 or diastolic ≥ 100 mm Hg	4	4	4	4	
d) Vascular disease	4	4	4	4	
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	2	2	2	**Evidence:** Women using COCs who had a history of high blood pressure in pregnancy had an increased risk of MI and VTE, compared with COC users who did not have a history of high blood pressure during pregnancy. The absolute risks of acute MI and VTE in this population remained small *(16, 17, 37, 41, 43, 44–49)*.

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Deep vein thrombosis (DVT)/pulmonary embolism (PE)[b]					
a) History of DVT/PE	4	4	4	4	
b) Acute DVT/PE	4	4	4	4	
c) DVT/PE and established on anticoagulant therapy	4	4	4	4	
d) Family history (first-degree relatives)	2	2	2	2	
e) Major surgery:					
with prolonged immobilization	4	4	4	4	
without prolonged immobilization	2	2	2	2	
f) Minor surgery without immobilization	1	1	1	1	
Known thrombogenic mutations (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and anti-thrombin deficiencies)	4	4	4	4	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening. **Evidence:** Among women with thrombogenic mutations, COC users had a 2- to 20-fold higher risk of thrombosis than non-users *(50)*.
Superficial venous disorders					
a) Varicose veins	1	1	1	1	**Evidence:** One study suggested that among women with varicose veins, the rates of VTE and superficial venous thrombosis (SVT) were higher in oral contraceptive users compared with non-users; however, statistical significance was not reported, and the number of events was small *(51)*.

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
b) Superficial venous thrombosis (SVT)	2	2	2	2	**Clarification:** SVT may be associated with an increased risk of VTE. **Evidence:** One study demonstrated that among women with SVT, the risk of VTE was higher in oral contraceptive users compared with non-users *(51)*.
Current and history of ischaemic heart disease	4	4	4	4	
Stroke (history of cerebro-vascular accident)	4	4	4	4	
Known dyslipidaemias without other known cardiovascular risk factors	2	2	2	2	**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening. Increased levels of total cholesterol, low-density lipoprotein (LDL) and triglycerides, as well as a decreased level of high-density lipoprotein (HDL), are known risk factors for CVD. Women with known severe genetic lipid disorders are at much higher lifetime risk for CVD and may warrant further clinical consideration. **Evidence:** Limited evidence on use of CHCs among women with dyslipidaemia and risk of cardiovascular outcomes provided inconsistent results. One study suggested an increased risk for MI among COC users with hypercholesterolaemia compared with non-users without hypercholesterolaemia; 1 study suggested an increased risk for VTE and for stroke among COC users with dyslipidaemia compared with COC users without dyslipidaemia; and 1 study suggested no worsening of lipid abnormalities among CHC users with dyslipidaemia compared with non-users with dyslipidaemia *(52)*. No evidence of risk for pancreatitis was identified.

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Valvular heart disease[b]					
a) Uncomplicated	2	2	2	2	
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis)	4	4	4	4	
Rheumatic diseases					
Systemic lupus erythematosus (SLE)					
People with SLE are at increased risk of ischaemic heart disease, stroke and VTE. Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for CVD are present; these classifications must be modified in the presence of such risk factors. Available evidence indicates that many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives *(53)*.					
a) Positive (or unknown) antiphospholipid antibodies	4	4	4	4	**Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis *(53)*.
b) Severe thrombocytopenia	2	2	2	2	
c) Immunosuppressive treatment	2	2	2	2	
d) None of the above	2	2	2	2	

Combined hormonal contraceptives (CHCs)

CHCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation								Clarifications/Evidence
	COC		P		CVR		CIC		
	I	C	I	C	I	C	I	C	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive									
Neurological conditions									
Headaches[b]									**Clarification:** Classification depends on accurate diagnosis of those severe headaches that are migrainous and those that are not. Any new headaches or marked changes in headaches should be evaluated. Classification is for women without any other risk factors for stroke. Risk of stroke increases with age, hypertension and smoking. **Evidence:** Among women with migraine, women who also had aura had a higher risk of stroke than those without aura. Women with a history of migraine who use COCs are about 2–4 times as likely to have an ischaemic stroke as non-users with a history of migraine *(54)*.
a) Non-migrainous (mild or severe)	1	2	1	2	1	2	1	2	
b) Migraine:									
without aura									
age < 35 years	2	3	2	3	2	2	2	3	
age ≥ 35 years	3	4	3	4	3	4	3	4	
with aura, at any age	4	4	4	4	4	4	4	4	
Epilepsy	1		1		1		1		**Clarification:** If a woman is taking anticonvulsants, refer to the last section of this table, on drug interactions. Certain anticonvulsants lower COC effectiveness. The extent to which P, CVR or CIC use is similar to COC use in this regard remains unclear.
Depressive disorders									
Depressive disorders	1		1		1		1		**Clarification:** The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. There is a potential for drug interactions between certain antidepressant medicines and hormonal contraceptives. **Evidence:** COC use did not increase depressive symptoms in women with depression compared with baseline or compared with non-users with depression *(55)*.

Combined hormonal contraceptives (CHCs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarifications/Evidence
	COC	P	CVR	CIC	
COC = combined oral contraceptive, P = combined contraceptive patch CVR = combined contraceptive vaginal ring, CIC = combined injectable contraceptive					
Reproductive tract infections and disorders					
Vaginal bleeding patterns[b]					
a) Irregular pattern without heavy bleeding	1	1	1	1	
b) Heavy or prolonged bleeding (includes regular and irregular patterns)	1	1	1	1	**Clarification:** Unusually heavy bleeding should raise the suspicion of a serious underlying condition. **Evidence:** A Cochrane review identified 1 randomized controlled trial (RCT) evaluating the effectiveness of COC use compared with naproxen and danazol in treating menorrhagia in women. Women with menorrhagia did not report worsening of the condition or any adverse events related to COC use *(56)*.
Unexplained vaginal bleeding[b] (suspicious for serious condition)					
a) Before evaluation	2	2	2	2	**Clarification:** If pregnancy or an underlying pathological condition (e.g. pelvic malignancy) is suspected, it must be evaluated, and the MEC category adjusted after evaluation.
Endometriosis	1	1	1	1	**Evidence:** A Cochrane review identified 1 RCT evaluating the effectiveness of COC use compared with a gonadotropin-releasing hormone (GnRH) analogue in treating the symptoms of endometriosis. Women with endometriosis did not report worsening of the condition or any adverse events related to COC use *(57)*.
Benign ovarian tumours (including cysts)	1	1	1	1	

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Severe dysmenorrhoea	1	1	1	1	**Evidence:** There was no increased risk of side-effects with COC use among women with dysmenorrhoea compared with women not using COCs. Some COC users had a reduction in pain and bleeding *(58, 59)*.
Gestational trophoblastic disease					**Evidence:** Following molar pregnancy evacuation, the balance of evidence found COC use did not increase the risk of post-molar trophoblastic disease, and some COC users experienced a more rapid regression in human chorionic gonadotropin (hCG) levels, compared with non-users *(60)*. Limited evidence suggests that use of COCs during chemotherapeutic treatment does not significantly affect the regression or treatment of post-molar trophoblastic disease compared with women who used a non-hormonal contraceptive method or depot medroxyprogesterone acetate (DMPA) during chemotherapeutic treatment *(60)*.
a) Decreasing or undetectable β-hCG levels	1	1	1	1	
b) Persistently elevated β-hCG levels or malignant disease	1	1	1	1	
Cervical ectropion[b]	1	1	1	1	
Cervical intraepithelial neoplasia (CIN)	2	2	2	2	**Evidence:** Among women with persistent human papillomavirus (HPV) infection, long-term COC use (≥ 5 years) may increase the risk of carcinoma in situ and invasive carcinoma *(20, 61)*. Limited evidence on women with low-grade squamous intraepithelial lesions found use of the CVR did not worsen the condition *(20)*.
Cervical cancer[b] (awaiting treatment)	2	2	2	2	
Breast disease[b]					
a) Undiagnosed mass	2	2	2	2	**Clarification:** Evaluation should be pursued as early as possible.
b) Benign breast disease	1	1	1	1	

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c) Family history of cancer	1	1	1	1	**Evidence:** Women with breast cancer susceptibility genes (e.g. BRCA1 and BRCA2) have a higher baseline risk of breast cancer than women without these genes. The baseline risk of breast cancer is also higher among women with a family history of breast cancer than among those who do not have such a history. Current evidence, however, does not suggest that the increased risk of breast cancer among women with either a family history of breast cancer or breast cancer susceptibility genes is modified by the use of COCs *(62)*.
d) Breast cancer:					
current	4	4	4	4	
past and no evidence of current disease for 5 years	3	3	3	3	
Endometrial cancer[b]	1	1	1	1	
Ovarian cancer[b]	1	1	1	1	
Uterine fibroids[b]					
a) Without distortion of the uterine cavity	1	1	1	1	
b) With distortion of the uterine cavity	1	1	1	1	

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Pelvic inflammatory disease (PID)[b]					
a) Past PID (assuming no current risk factors for STIs)					
with subsequent pregnancy	1	1	1	1	
without subsequent pregnancy	1	1	1	1	
b) Current PID	1	1	1	1	
STIs					
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	1	1	1	1	
b) Other STIs (excluding HIV and hepatitis)	1	1	1	1	
c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	1	
d) Increased risk of STIs	1	1	1	1	**Evidence:** Evidence suggests that there may be an increased risk of chlamydial cervicitis among COC users at high risk of STIs. For other STIs, there is either evidence of no association between COC use and STI acquisition or too limited evidence to draw any conclusions *(63)*.

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HIV/AIDS					
High risk of HIV New guidance on this topic was issued in 2019 *(64)* (https://www.who.int/news/item/29-08-2019-who-revises- recommendations-on- hormonal-contraceptive-use-for-women-at-high-hiv-risk)	1	1	1	1	**Evidence:** Low-to-moderate-quality evidence from 11 observational studies suggested no association between COC use (it was assumed that studies that did not specify oral contraceptive type examined mostly, if not exclusively, COC use) and HIV acquisition. No studies of P, CVR or CIC were identified *(65)*.
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	1	1	1	1	**Clarification for asymptomatic or mild HIV disease (WHO stage 1 or 2) and severe or advanced HIV disease (WHO stage 3 or 4)**: Because there may be drug interactions between hormonal contraceptives and antiretroviral therapy (ART), refer to the last section of this table, on drug interactions. **Evidence for asymptomatic or mild HIV disease (WHO stage 1 or 2) and severe or advanced HIV disease (WHO stage 3 or 4)**: Out of 8 available studies, 7 suggested no association between use of COCs and progression of HIV, as measured by CD4 count < 200 cells/mm^3, initiation of ART, or mortality. One RCT found an increased risk of a composite outcome of declining CD4 count or death among COC users when compared with users of copper-bearing IUDs (Cu-IUDs). Two prospective observational studies directly assessed the effects of different hormonal contraceptive methods on female-to-male HIV transmission by measuring seroconversions in male partners of women known to be using hormonal contraceptives. One of these studies reported an elevated, but not statistically significant, point estimate for COCs. The other study also did not find a statistically significant association for COCs. Studies indirectly assessing the effect of various hormonal contraceptive methods on female-to-male HIV transmission by measuring genital viral shedding as a proxy for infectivity have had mixed results. The majority of indirect studies measuring whether various hormonal contraceptive methods affect plasma HIV viral load have found no effect *(66, 67)*.
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	1	1	1	1	

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Other infections					
Schistosomiasis					
a) Uncomplicated	1	1	1	1	**Evidence:** Among women with uncomplicated schistosomiasis, COC use had no adverse effects on liver function *(68–74)*.
b) Fibrosis of the liver (if severe, see cirrhosis)	1	1	1	1	
Tuberculosis					**Clarification:** If a woman is taking rifampicin, refer to the last section of this table, on drug interactions. Rifampicin is likely to decrease COC effectiveness. The extent to which P or CVR use is similar to COC use in this regard remains unclear.
a) Non-pelvic	1	1	1	1	
b) Pelvic	1	1	1	1	
Malaria	1	1	1	1	
Endocrine conditions					
Diabetes					
a) History of gestational disease	1	1	1	1	**Evidence:** The development of non-insulin-dependent diabetes in women with a history of gestational diabetes is not increased by the use of COCs *(75–82)*. Likewise, lipid levels appear to be unaffected by COC use *(83–85)*.
b) Non-vascular disease:					**Evidence:** Among women with insulin- or non-insulin-dependent diabetes, COC use had limited effect on daily insulin requirements and no effect on long-term diabetes control (e.g. haemoglobin A1c [HbA1c] levels) or progression to retinopathy. Changes in lipid profile and haemostatic markers were limited, and most changes remained within normal values *(82, 85–93)*.
non-insulin dependent	2	2	2	2	
insulin dependent	2	2	2	2	

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c) Nephropathy/ retinopathy/ neuropathy	3/4	3/4	3/4	3/4	**Clarification:** The MEC category should be assessed according to the severity of the condition.
d) Other vascular disease or diabetes of > 20 years' duration	3/4	3/4	3/4	3/4	**Clarification:** The MEC category should be assessed according to the severity of the condition.
Thyroid disorders					
a) Simple goitre	1	1	1	1	
b) Hyperthyroid	1	1	1	1	
c) Hypothyroid	1	1	1	1	
Gastrointestinal conditions					
Gall bladder disease[b]					
a) Symptomatic:					
treated by cholecystectomy	2	2	2	2	
medically treated	3	3	3	2	
current	3	3	3	2	
b) Asymptomatic	2	2	2	2	
History of cholestasis[b]					
a) Pregnancy related	2	2	2	2	
b) Past-COC related	3	3	3	2	

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	COC		P		CVR		CIC		
	I	C	I	C	I	C	I	C	
Viral hepatitis									**Clarification:** The MEC category should be assessed according to the severity of the condition. **Evidence:** Data suggest that in women with chronic hepatitis, COC use does not increase the rate or severity of cirrhotic fibrosis, nor does it increase the risk of hepatocellular carcinoma *(94)*. For women who are carriers, COC use does not appear to trigger liver failure or severe dysfunction *(94)*. Evidence is limited for COC use during active hepatitis *(94)*.
a) Acute or flare	3/4	2	3/4	2	3/4	2	3	2	
b) Carrier	1	1	1	1	1	1	1	1	
c) Chronic	1	1	1	1	1	1	1	1	
Cirrhosis									
a) Mild (compensated)	1		1		1		1		
b) Severe (decompensated)	4		4		4		3		
Liver tumours[b]									
a) Benign:									
focal nodular hyperplasia	2		2		2		2		**Evidence:** There is limited, direct evidence that hormonal contraceptive use does not influence either progression or regression of liver lesions among women with focal nodular hyperplasia *(95)*.
hepatocellular adenoma	4		4		4		3		
b) Malignant (hepatoma)	4		4		4		3/4		
Anaemias									
Thalassaemia[b]	1		1		1		1		
Sickle cell disease	2		2		2		2		
Iron-deficiency anaemia[b]	1		1		1		1		

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Drug interactions					
Antiretroviral therapy (ART)[a] [REVIEWED]					
a) Nucleoside/ nucleotide reverse transcriptase inhibitors (NRTIs):					**Evidence:** NRTIs do not appear to have significant risk of interactions with hormonal contraceptive methods *(96)*.
abacavir (ABC)	1	1	1	1	
tenofovir (TDF)	1	1	1	1	
zidovudine (AZT)	1	1	1	1	
lamivudine (3TC)	1	1	1	1	
didanosine (DDI)	1	1	1	1	
emtricitabine (FTC)	1	1	1	1	
stavudine (D4T)	1	1	1	1	
b) Non-nucleoside/ nucleotide reverse transcriptase inhibitors (NNRTIs):					**Clarification:** Some data suggest potential drug interactions between EFV and some hormonal contraceptives. These interactions may reduce the effectiveness of the hormonal contraceptive. **Evidence:** A systematic review (2024) indicated that NNRTIs do not appear to have significant risk of interactions with CHCs. For EFV-containing ART, a pharmacokinetic study showed consistent significant decreases in contraceptive hormone levels in women taking COCs, and a small clinical study showed higher ovulation rates in women taking EFV-containing ART and COCs *(96)*.
efavirenz (EFV)	2	2	2	2	
etravirine (ETR)	1	1	1	1	
nevirapine (NVP)	1	1	1	1	
rilpivirine (RPV)	1	1	1	1	

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c) Protease inhibitors:					**Evidence:** Protease inhibitors do not appear to have significant risk of interactions with CHCs *(96)*.
ritonavir-boosted atazanavir (ATV/r)	1	1	1	1	
ritonavir-boosted lopinavir (LPV/r)	1	1	1	1	
ritonavir-boosted darunavir (DRV/r)	1	1	1	1	
ritonavir (RTV)	1	1	1	1	
d) Integrase inhibitors:					**Evidence:** Integrase inhibitors do not appear to interact with COCs *(96)*.
raltegravir (RAL)	1	1	1	1	
dolutegravir (DTG)	1	1	1	1	
HIV pre-exposure prophylaxis (PrEP)[a] [REVIEWED]					**Evidence:** A systematic review (2024) examined the body of evidence on drug interactions between hormonal contraception and antiretroviral drugs (ARVs), including drugs used for HIV PrEP *(96)*. Of the 49 articles included in this review, 6 studies reported results on the concomitant use of hormonal contraception and PrEP (3 evaluated oral TDF/FTC, 1 the DPV ring and 2 injectable CAB). Two studies were secondary analyses of data from RCTs *(97, 98)* and 4 were non-randomized trials focused on pharmacokinetic measures *(99–102)*. One additional cohort study evaluated BMD among women taking oral TDF/FTC for ART *(103)*. Limited evidence found no significant differences for risk of pregnancy, PrEP effectiveness or adverse events for women using hormonal contraception and taking PrEP. Pharmacokinetic evidence also does not suggest any potential drug interactions between hormonal contraceptives and PrEP.
a) NRTI: tenofovir-emtricitabine (TDF/FTC)	1	1	1	1	
b) NNRTI: dapivirine (DPV) ring	1	1	1	1	
c) Integrase inhibitors: cabotegravir (CAB)	1	1	1	1	

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Anticonvulsant therapy					
a) Certain anti-convulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3	3	3	2	**Clarification:** Although the interaction of certain anticonvulsants with COCs, P or CVR is not harmful to women, it is likely to reduce the effectiveness of COCs, P or CVR. Use of other contraceptives should be encouraged for women who are long-term users of any of these anticonvulsants. When a COC is chosen, a preparation containing a minimum of 30 µg of ethinyl estradiol should be used. **Evidence:** Use of certain anticonvulsants may decrease the effectiveness of COCs *(104)*.
b) Lamotrigine	3	3	3	3	**Clarification:** The recommendation for lamotrigine does not apply when lamotrigine is already being taken with other medicines that strongly inhibit (e.g. sodium valproate) or induce (e.g. carbamazepine) its metabolism, since, in these cases, the moderate effect of the combined contraceptive is unlikely to be apparent. **Evidence:** Pharmacokinetic studies show that levels of lamotrigine decrease significantly during COC use and increase significantly during the pill-free interval *(104)*. Some women who used both COCs and lamotrigine experienced increased seizure activity in 1 trial *(104)*.

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Antimicrobial therapy					
a) Broad-spectrum antibiotics	1	1	1	1	**Evidence:** Most broad-spectrum antibiotics do not affect the contraceptive effectiveness of COCs, P or CVR *(105)*.
b) Antifungals	1	1	1	1	**Evidence:** Studies of antifungal agents have shown no clinically significant pharmacokinetic interactions with COCs or CVR *(105)*.
c) Antiparasitics	1	1	1	1	**Evidence:** Studies of antiparasitic agents have shown no clinically significant pharmacokinetic interactions with COCs *(74, 105)*.
d) Rifampicin or rifabutin therapy	3	3	3	2	**Clarification:** Although the interaction of rifampicin or rifabutin therapy with COCs, P, CVR or CICs is not harmful to women, it is likely to reduce the effectiveness of COCs, P, CVR or CICs. Use of other contraceptives should be encouraged for women who are long-term users of either of these medicines. When a COC is chosen, a preparation containing a minimum of 30 µg ethinyl estradiol should be used. **Evidence:** The balance of the evidence suggests that rifampicin reduces the effectiveness of COCs *(106)*. Data on rifabutin are limited, but effects on metabolism of COCs are less than with rifampicin, and small studies have not shown evidence of ovulation *(106, 107)*.

ART: antiretroviral therapy; ARV: antiretroviral (drug); ß-hCG: beta-human chorionic gonadotropin; BF: breastfeeding; BMD: bone mineral density; BMI: body mass index; CD4: cluster of differentiation 4; CIN: cervical intraepithelial neoplasia; CVD: cardiovascular disease; DVT: deep vein thrombosis; GnRH: gonadotropin-releasing hormone; HDL: high-density lipoprotein; LDL: low-density lipoprotein; MEC: *Medical eligibility criteria for contraceptive use* (this publication); MI: myocardial infarction; NA: not applicable; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; PE: pulmonary embolism; PID: pelvic inflammatory disease; PrEP: pre-exposure prophylaxis; RCT: randomized controlled trial; SLE: systemic lupus erythematosus; SVT: superficial venous thrombosis; VTE: venous thromboembolism.

5.1.5 Recommendations reviewed for sixth edition

These recommendations were reviewed according to WHO requirements for guideline development, as part of the preparation of this edition of the MEC. The population, intervention, comparator, outcome (PICO) questions developed by the GDG and the databases searched to retrieve the evidence, which guided the preparation of systematic reviews, are described in greater detail in the web annex.

5.1.6 Additional comments

Age

Age 40 years and over: The risk of cardiovascular disease increases with age and may also increase with CHC use. In the absence of other adverse clinical conditions, CHCs can be used until menopause.

Past ectopic pregnancy

Women with past ectopic pregnancy: The risk of future ectopic pregnancy is increased in these women. CHCs provide protection against pregnancy in general, including ectopic gestation.

Deep vein thrombosis/pulmonary embolism (DVT/PE)

Family history of DVT/PE (first-degree relatives): Some conditions which increase the risk of DVT/PE are heritable.

Valvular heart disease

Women with valvular heart disease: CHC use may further increase the risk of arterial thrombosis; women with complicated valvular heart disease are at greatest risk.

Headaches

Aura is a specific focal neurological symptom. For more information on this and other diagnostic criteria, see *The international classification of headache disorders, second edition (2004)*, by the Headache Classification Subcommittee of the International Headache Society *(108)*.

Vaginal bleeding patterns

Healthy women: Irregular menstrual bleeding patterns are common.

Unexplained vaginal bleeding

Women with unexplained vaginal bleeding: There are no conditions that cause vaginal bleeding that will be worsened in the short term by use of CHCs.

Cervical ectropion

Women with cervical ectropion: This is not a risk factor for cervical cancer, and there is no need for restriction of CHC use.

Cervical cancer

Women awaiting treatment: There is some theoretical concern that CHC use may affect prognosis of the existing disease. While awaiting treatment, women may use CHCs. In general, treatment of this condition renders a woman sterile.

Breast disease

Women with breast cancer: Breast cancer is a hormonally sensitive tumour, and the prognosis of women with current or recent breast cancer may worsen with CHC use.

Endometrial cancer

COC use reduces the risk of developing endometrial cancer.

Women awaiting treatment: Women may use CHCs. In general, treatment of this condition renders a woman sterile.

Ovarian cancer

COC use reduces the risk of developing ovarian cancer.

Women awaiting treatment: Women may use CHCs. In general, treatment of this condition renders a woman sterile.

Uterine fibroids

COCs do not appear to cause growth of uterine fibroids, and CICs, the patch and CVR are not expected to either.

Pelvic inflammatory disease (PID)

COCs may reduce the risk of PID among women with STIs. Whether CICs, the patch or CVR reduce the risk of PID among women with STIs is unknown.

CHCs do not protect against HIV or lower genital tract STIs.

Gall bladder disease

CHCs may cause a small increased risk of gall bladder disease.

Women with gall bladder disease: There is also concern that CHCs may worsen existing gall bladder disease.

Healthy women: Unlike COCs, CICs have been shown to have minimal effect on liver function in healthy women and have no first-pass effect on the liver.

History of cholestasis

History of pregnancy-related cholestasis: This may predict an increased risk of developing COC-related cholestasis.

History of COC-related cholestasis: This predicts an increased risk with subsequent COC use.

Liver tumours

Women with hepatocellular adenoma: There is no evidence regarding hormonal contraceptive use among women with hepatocellular adenoma.

All women: COC use in healthy women is associated with development and growth of hepatocellular adenoma.

Thalassaemia

Women with thalassaemia: There is anecdotal evidence from countries where thalassaemia is prevalent that COC use does not worsen the condition.

Iron-deficiency anaemia

All women: CHC use may decrease menstrual blood loss.

References for section 5.1[5]

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5.2 Progestogen-only contraceptives (POCs)

5.2.1 Progestogen-only pills (POPs)

POPs contain only a progestogen and no estrogen.

5.2.2 Progestogen-only injectables (POIs)

These injectable contraceptives include depot medroxyprogesterone acetate (DMPA) and norethisterone enanthate (NET-EN). POIs act through inhibition of follicular development and ovulation. An additional mechanism of action is the thickening of cervical mucus. There are three formulations considered here: DMPA-IM (150 mg of DMPA given intramuscularly) or DMPA-SC (104 mg of DMPA given subcutaneously) both administered at three-month intervals; or NET-EN (200 mg of NET-EN given intramuscularly), administered at two-month intervals.

Identified evidence for the conditions of age, obesity, endometriosis and HIV among DMPA-SC users appear consistent with existing recommendations for DMPA-IM users *(1)*. Further, DMPA-SC and DMPA-IM appear to be therapeutically equivalent, with similar safety profiles when used by healthy women *(1)*. Pending further evidence, the GDG concluded that the evidence available for DMPA-IM applies to DMPA-SC and, therefore, DMPA-SC should have the same categories as DMPA-IM; the assigned recommendations should be considered a preliminary best judgement, which will be re-evaluated as new data become available.

5.2.3 Contraceptive implants

Implants are a type of long-acting, reversible contraceptive option containing progestogen. These subdermal implants release the progestogen at a steady rate and act in the same fashion as other POCs – by inhibiting ovulation and promoting thickening of the cervical mucus. The following types of implants are considered here:

- Levonorgestrel (LNG): The LNG-containing implants are Jadelle and Sino-implant (II).
  - Jadelle is a two-rod implant, each rod containing 75 mg of LNG, approved for five years of use.
  - Sino-implant (II) is a two-rod implant, each rod containing 75 mg of LNG, approved for four years of use.
- Etonogestrel (ETG): The ETG-containing implants are Implanon and Nexplanon; both consist of a single-rod containing 68 mg of ETG and are approved for three years of use.

No studies with a comparison group were identified that provided direct evidence on the use of the Sino-implant (II) among women with medical conditions addressed in the MEC. Evidence from three randomized controlled trials (RCTs) of healthy women demonstrate that Sino-implant (II) has a similar safety and pharmacokinetic profile to that of other LNG implants, with no significant differences in the rates of serious adverse events, such as ectopic pregnancy or discontinuation due to medical problems *(2, 3)*. Therefore, safety data from studies of other LNG implants among women with medical conditions were used due to the similarity of Sino-implant (II) and other LNG implants in hormone formulation, quality profile and daily release rates. The GDG assigned the same recommendations for Sino-implant (II) as for the other LNG implants.

5.2.4 Recommendations for POCs

Progestogen-only contraceptives (POCs)

POCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	POP	DMPA/ NET-EN injectable	LNG/ETG implant	
POP = progestogen-only pill, LNG/ETG = levonorgestrel and etonogestrel DMPA = depot medroxyprogesterone acetate, NET-EN = norethisterone enanthate				
Personal characteristics and reproductive history				
Pregnancy	NA	NA	NA	**Clarification:** Use of POCs is not required. There is no known harm to the woman, the course of her pregnancy, or the fetus if POCs are accidentally used during pregnancy. However, the relationship between DMPA use during pregnancy and its effects on the fetus remains unclear.
Age				**Evidence:** Most studies have found that women lose bone mineral density (BMD) during DMPA use but recover BMD after discontinuation. Limited evidence shows a weak association with fracture, although 1 large study suggests that women who choose DMPA may be at higher risk for fracture even prior to initiation of the method *(4)*. It is unclear whether adult women with long durations of DMPA use can regain BMD to baseline levels before entering menopause and whether adolescents can reach peak bone mass after discontinuation of DMPA. The relationship between these changes in BMD during the reproductive years and future fracture risk is unknown. Studies generally find no effect of POCs other than DMPA on BMD *(4, 5, 6, 7–50)*.
a) Menarche to < 18 years	1	2	1	
b) 18–45 years	1	1	1	
c) > 45 years	1	2	1	
Parity				
a) Nulliparous	1	1	1	
b) Parous	1	1	1	

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Breastfeeding (BF)[a] [reviewed]				**Evidence:** A total of 61 studies provided evidence on the use of POCs in BF women, 50 of which were previously reviewed for this recommendation *(50)*. New evidence from 9 studies (including 2 on implants, 2 on injectables and 5 on pills) continues to demonstrate no consistent negative impacts on BF performance (time to lactogenesis, milk production, BF continuation, BF duration, exclusivity or BF problems) or infant health outcomes (infant weight, infant length, infant head circumference or infant illness) among BF women who use POCs compared with BF women who do not use POCs *(51–59)*. New evidence from 2 studies demonstrates no harmful effects on BF performance or infant growth when progestogen-only implant initiation occurs prior to 6 weeks postpartum among BF women compared with later initiation *(60, 61)*. New evidence on POCs, including injectables, is generally consistent with the previous evidence in demonstrating no harmful effects on BF or infant outcomes with POC use compared with no POC use. Limited evidence exists on high-risk infants (low birth weight or premature) and no studies included women at risk for BF difficulties.
a) < 6 weeks postpartum	2	2	2	
b) ≥ 6 weeks to < 6 months postpartum (primarily BF)	1	1	1	
c) ≥ 6 months postpartum	1	1	1	
Postpartum (in non-BF women)				
a) < 21 days	1	1	1	
b) ≥ 21 days	1	1	1	
Post-abortion				**Clarification:** POCs may be started immediately post-abortion. **Evidence:** Limited evidence suggests that there are no adverse side-effects when an LNG implant or NET-EN injectables are initiated after first-trimester abortion *(62)*.
a) First trimester	1	1	1	
b) Second trimester	1	1	1	
c) Immediate post-septic abortion	1	1	1	

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Past ectopic pregnancy[b]	2	1	1	
History of pelvic surgery	1	1	1	
Smoking				
a) Age < 35 years	1	1	1	
b) Age ≥ 35 years:				
< 15 cigarettes/day	1	1	1	
≥ 15 cigarettes/day	1	1	1	
Obesity				**Clarification:** There is evidence for differential weight gain among normal-weight and obese adolescents who use DMPA but not among those using NET-EN. However, NET-EN is Category 2 due to evidence regarding potential effects of NET-EN on BMD among adolescents (see row: Age). **Evidence:** Among adult women, there is generally no association between baseline weight and weight gain among DMPA users compared with non-users. Evidence is mixed for adolescent DMPA users, with some studies observing greater weight gain among obese compared with normal-weight users, but other studies showing no association. Methodological differences across studies may account for the differences in findings. Data on other POCs and other adverse outcomes are limited *(63, 64–80)*.
a) ≥ 30 kg/m^2 BMI	1	1	1	
b) Menarche to < 18 years and ≥ 30 kg/m^2 BMI	1	2	1	
Blood pressure measurement unavailable	NA	NA	NA	**Clarification:** It is desirable to have blood pressure measurements taken before initiation of POCs. However, in some settings blood pressure measurements are unavailable. In many of these settings, pregnancy-related morbidity and mortality risks are high, and POCs are among the few methods widely available. In such settings, women should not be denied use of POCs simply because their blood pressure cannot be measured.

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Cardiovascular disease (CVD)				
Multiple risk factors for arterial CVD (e.g. older age, smoking, diabetes, hypertension and known dyslipidaemias)	2	3	2	**Clarification:** When multiple major risk factors exist, the risk of CVD may increase substantially. Some POCs may increase the risk of thrombosis, although this increase is substantially less than with combined oral contraceptives (COCs). The effects of DMPA and NET-EN may persist for some time after discontinuation.
Hypertension[b]				
For all categories of hypertension, classifications are based on the assumption that no other risk factors for CVD exist. When multiple risk factors do exist, the risk of CVD may increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.				
a) History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	2	2	2	**Clarification:** It is desirable to have blood pressure measurements taken before initiation of POCs. However, in some settings blood pressure measurements are unavailable. In many of these settings, pregnancy-related morbidity and mortality risks are high, and POCs are among the few types of methods widely available. In such settings, women should not be denied the use of POCs simply because their blood pressure cannot be measured.
b) Adequately controlled hypertension, where blood pressure CAN be evaluated	1	2	1	**Clarification:** Women adequately treated for hypertension are at reduced risk of acute myocardial infarction (MI) and stroke as compared with untreated women. Although there are no data, POC users with adequately controlled and monitored hypertension should be at reduced risk of acute MI and stroke compared with untreated hypertensive POC users.

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c) Elevated blood pressure levels (properly taken measurements):				**Evidence:** Limited evidence suggests that among women with hypertension, those who used POPs or progestogen-only injectables (POIs) had a small increased risk of cardiovascular events compared with women who did not use these methods *(81)*.
systolic 140–159 or diastolic 90–99 mm Hg	1	2	1	
systolic ≥ 160 or diastolic ≥ 100 mm Hg	2	3	2	
d) Vascular disease	2	3	2	
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	1	
Deep vein thrombosis (DVT)/pulmonary embolism (PE)[b]				
a) History of DVT/PE	2	2	2	
b) Acute DVT/PE	3	3	3	**Evidence:** There is no direct evidence on the use of POCs among women with DVT/PE on anticoagulant therapy. Although evidence on the risk of venous thrombosis with the use of POCs is inconsistent in otherwise healthy women, any small increased risk is substantially less than that with COCs *(82)*.

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c) DVT/PE and established on anticoagulant therapy	2	2	2	**Evidence:** There is no direct evidence on the use of POCs among women with DVT/PE on anticoagulant therapy. Although evidence on the risk of venous thrombosis with the use of POCs is inconsistent in otherwise healthy women, any small increased risk is substantially less than that with COCs *(82)*. Limited evidence indicates that intramuscular injections of DMPA in women on chronic anticoagulation therapy does not pose a significant risk of haematoma at the injection site or increase the risk of heavy or irregular vaginal bleeding *(83)*.
d) Family history (first-degree relatives)	1	1	1	
e) Major surgery:				
with prolonged immobilization	2	2	2	
without prolonged immobilization	1	1	1	
f) Minor surgery without immobilization	1	1	1	
Known thrombogenic mutations (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and antithrombin deficiencies)	2	2	2	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.
Superficial venous disorders				
a) Varicose veins	1	1	1	
b) Superficial venous thrombosis (SVT)	1	1	1	

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Current and history of ischaemic heart disease[b]	I	C		I	C	
	2	3	3	2	3	
Stroke[b] (history of cerebrovascular accident)	I	C		I	C	
	2	3	3	2	3	
Known dyslipidaemias without other known cardiovascular risk factors	2		2	2		**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.
Valvular heart disease						
a) Uncomplicated	1		1	1		
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of sub-acute bacterial endocarditis)	1		1	1		
Rheumatic diseases						
Systemic lupus erythematosus (SLE)[b]						
People with SLE are at increased risk of ischaemic heart disease, stroke and venous thromboembolism (VTE). Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for CVD are present; these classifications must be modified in the presence of such risk factors. Available evidence indicates that many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives *(84)*.						
			I	C		
a) Positive (or unknown) antiphospholipid antibodies	3		3	3	3	**Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis *(84)*.
b) Severe thrombocytopenia	2		3	2	2	

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	I	C	I	C	I	C	
POC = progestogen-only pill, LNG/ETG = levonorgestrel and etonogestrel DMPA = depot medroxyprogesterone acetate, NET-EN = norethisterone enanthate							
c) Immuno-suppressive treatment	2		2	2	2		
d) None of the above	2		2	2	2		
Neurological conditions							
Headaches[b]							
a) Non-migrainous (mild or severe)	1	1	1	1	1	1	**Clarification:** Classification depends on accurate diagnosis of those severe headaches that are migrainous and those that are not. Any new headaches or marked changes in headaches should be evaluated. Classification is for women without any other risk factors for stroke. Risk of stroke increases with age, hypertension and smoking.
b) Migraine:							
without aura							
age < 35 years	1	2	2	2	2	2	
age ≥ 35 years	1	2	2	2	2	2	
with aura, at any age	2	3	2	3	2	3	
Epilepsy	1		1		1		**Clarification:** If a woman is taking anticonvulsants, refer to the last section of this table, on drug interactions. Certain anticonvulsants lower POC effectiveness.
Depressive disorders							
Depressive disorders	1		1		1		**Clarification:** The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. There is a potential for drug interactions between certain antidepressant medicines and hormonal contraceptives. **Evidence:** POC use did not increase depressive symptoms in women with depression compared with baseline *(85)*.

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Reproductive tract infections and disorders				
Vaginal bleeding patterns[b]				
a) Irregular pattern without heavy bleeding	2	2	2	
b) Heavy or prolonged bleeding (includes regular and irregular patterns)	2	2	2	**Clarification:** Unusually heavy bleeding should raise the suspicion of a serious underlying condition.
Unexplained vaginal bleeding[b] (suspicious for serious condition)				**Clarification:** If pregnancy or an underlying pathological condition (e.g. pelvic malignancy) is suspected, it must be evaluated, and the MEC category adjusted after evaluation.
a) Before evaluation	2	3	3	
Endometriosis	1	1	1	
Benign ovarian tumours (including cysts)	1	1	1	
Severe dysmenorrhoea	1	1	1	
Gestational trophoblastic disease				
a) Decreasing or undetectable β-hCG levels	1	1	1	
b) Persistently elevated β-hCG levels or malignant disease	1	1	1	

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Cervical ectropion	1	1	1	
Cervical intraepithelial neoplasia (CIN)	1	2	2	**Evidence:** Among women with persistent human papillomavirus (HPV) infection, long-term DMPA use (≥ 5 years) may increase the risk of carcinoma in situ and invasive carcinoma *(86)*.
Cervical cancer[b] (awaiting treatment)	1	2	2	
Breast disease[b]				
a) Undiagnosed mass	2	2	2	**Clarification:** Evaluation should be pursued as early as possible.
b) Benign breast disease	1	1	1	
c) Family history of cancer	1	1	1	
d) Breast cancer:				
current	4	4	4	
past and no evidence of current disease for 5 years	3	3	3	
Endometrial cancer[b]	1	1	1	
Ovarian cancer[b]	1	1	1	
Uterine fibroids[b]				
a) Without distortion of the uterine cavity	1	1	1	
b) With distortion of the uterine cavity	1	1	1	

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Pelvic inflammatory disease (PID)[b]				
a) Past PID (assuming no current risk factors for STIs)				
with subsequent pregnancy	1	1	1	
without subsequent pregnancy	1	1	1	
b) Current PID	1	1	1	
STIs				
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	1	1	1	
b) Other STIs (excluding HIV and hepatitis)	1	1	1	
c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	
d) Increased risk of STIs	1	1	1	**Evidence:** Evidence suggests that there may be an increased risk of chlamydial cervicitis among DMPA users at high risk of STIs. For other STIs, there is either evidence of no association between DMPA use and STI acquisition or too limited evidence to draw any conclusions. There is no evidence for other POCs *(87)*.

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HIV/AIDS				
High risk of HIV New guidance on this topic was issued in 2019 *(88)* (https://www.who.int/news/item/29-08-2019-who-revises-recommendations-on-hormonal-contraceptive-use-for-women-at-high-hiv-risk)	1	1	1	**Evidence:** High-quality evidence from 1 randomized controlled trial (RCT) observed no statistically significant differences in HIV acquisition between DMPA-IM (intramuscular) vs copper-bearing intrauterine device (Cu-UD), DMPA-IM vs LNG implant, and Cu-IUD vs LNG implant. Of the low-to-moderate-quality evidence from 14 observational studies, some studies suggested a possible increased risk of HIV with POI use, which was most likely due to unmeasured confounding. Low-quality evidence from 3 observational studies did not suggest an increased HIV risk for implant users. No studies of sufficient quality were identified for POPs. Refer to the 2019 guidance statement *(89)*.

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Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	1	1	1	**Clarification** for asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) and severe or advanced HIV clinical disease (WHO stage 3 or 4): Because there may be drug interactions between hormonal contraceptives and antiretroviral therapy (ART), refer to the last section of this table, on drug interactions. **Evidence** for asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) and severe or advanced HIV clinical disease (WHO stage 3 or 4): Out of 6 available studies, 5 suggested no association between use of POIs and progression of HIV, as measured by CD4 count < 200 cells/mm^3, initiation of ART, or mortality *(90)*. One RCT found an increased risk of a composite outcome of declining CD4 count or death among oral contraceptive users (COCs and POPs) when compared with users of Cu-IUDs; this study, however, had significant loss to follow-up and method switching among groups, limiting its interpretation *(90)*. One study found no difference in ART initiation or CD4 count between users and non-users of the LNG-IUD *(90)*. Two prospective observational studies directly assessed the effects of different hormonal contraceptives on female-to-male HIV transmission by measuring seroconversions in male partners of women living with HIV and known to be using hormonal contraceptives. One study reported a statistically significant association between use of POIs and female-to-male transmission of HIV *(91)*, while another study did not find a statistically significant association between use of DMPA and female-to-male HIV transmission *(91)*. The findings of studies indirectly assessing the effects of various hormonal contraceptives on female-to-male HIV transmission by measuring genital viral shedding as a proxy for infectivity have been mixed. Most of the indirect studies measuring whether various hormonal contraceptives affect plasma HIV viral load have found no effect *(90)*.
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	1	1	1	

Progestogen-only contraceptives (POCs)

POCs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	POP	DMPA/ NET-EN injectable	LNG/ETG implant	
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Other infections				
Schistosomiasis				
a) Uncomplicated	1	1	1	**Evidence:** Among women with uncomplicated schistosomiasis, limited evidence showed that DMPA use had no adverse effects on liver function *(92)*.
b) Fibrosis of the liver (if severe, see cirrhosis)	1	1	1	
Tuberculosis				**Clarification:** If a woman is taking rifampicin, refer to the last section of this table, on drug interactions. Rifampicin is likely to decrease the effectiveness of some POCs.
a) Non-pelvic	1	1	1	
b) Pelvic	1	1	1	
Malaria	1	1	1	
Endocrine conditions				
Diabetes[b]				
a) History of gestational disease	1	1	1	**Evidence:** POCs had no adverse effects on serum lipid levels in women with a history of gestational diabetes in 2 small studies *(93, 94)*. There is only limited and inconsistent evidence regarding the development of non-insulin-dependent diabetes among users of POCs with a history of gestational diabetes *(95–98)*.
b) Non-vascular disease:				**Evidence:** Among women with insulin-dependent or non-insulin-dependent diabetes, limited evidence on the use of progestogen-only methods (POPs, DMPA injectable, LNG implant) suggests that these methods have little effect on short-term or long-term diabetes control (e.g. haemoglobin A1c [HbA1c] levels), haemostatic markers or lipid profile *(99–102)*.
non-insulin dependent	2	2	2	
insulin dependent	2	2	2	

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POP = progestogen-only pill, LNG/ETG = levonorgestrel and etonogestrel DMPA = depot medroxyprogesterone acetate, NET-EN = norethisterone enanthate				
c) Nephropathy/ retinopathy/ neuropathy	2	3	2	
d) Other vascular disease or diabetes of > 20 years' duration	2	3	2	
Thyroid disorders				
a) Simple goitre	1	1	1	
b) Hyperthyroid	1	1	1	
c) Hypothyroid	1	1	1	
Gastrointestinal conditions				
Gall bladder disease				
a) Symptomatic:				
treated by cholecystectomy	2	2	2	
medically treated	2	2	2	
current	2	2	2	
b) Asymptomatic	2	2	2	
History of cholestasis[b]				
a) Pregnancy-related	1	1	1	
b) Past-COC related	2	2	2	

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Viral hepatitis				
a) Acute or flare	1	1	1	
b) Carrier	1	1	1	
c) Chronic	1	1	1	
Cirrhosis				
a) Mild (compensated)	1	1	1	
b) Severe (decompensated)	3	3	3	
Liver tumours[b]				
a) Benign:				
focal nodular hyperplasia	2	2	2	**Evidence:** There is limited, direct evidence that hormonal contraceptive use does not influence either progression or regression of liver lesions among women with focal nodular hyperplasia *(103)*.
hepatocellular adenoma	3	3	3	
b) Malignant (hepatoma)	3	3	3	
Anaemias				
Thalassaemia	1	1	1	
Sickle cell disease	1	1	1	**Evidence:** Among women with sickle cell disease, POC use did not have adverse effects on haematological parameters and, in some studies, was beneficial with respect to clinical symptoms *(104)*.
Iron-deficiency anaemia[b]	1	1	1	

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	POP	DMPA/ NET-EN injectable	LNG/ETG implant	
Drug interactions				
Antiretroviral therapy (ART)[a] [REVIEWED]				
a) Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs):				**Evidence:** NRTIs do not appear to have significant risk of interactions with POCs *(105–108)*.
abacavir (ABC)	1	1	1	
tenofovir (TDF)	1	1	1	
zidovudine (AZT)	1	1	1	
lamivudine (3TC)	1	1	1	
didanosine (DDI)	1	1	1	
emtricitabine (FTC)	1	1	1	
stavudine (D4T)	1	1	1	
b) Non-nucleoside/nucleotide reverse transcriptase inhibitors (NNRTIs):				**Clarification:** Some data suggest potential drug interactions between EFV and some hormonal contraceptives. These interactions may reduce the effectiveness of the hormonal contraceptive. **Evidence:** Limited and inconsistent evidence suggests contraceptive effectiveness may be decreased in those using contraceptive implants *(107, 108)*. Evidence does not show decreased contraceptive effectiveness for other POCs.
efavirenz (EFV)	2	DMPA=1; NET-EN=2	2	
etravirine (ETR)	1	1	1	
nevirapine (NVP)	1	1	1	
rilpivirine (RPV)	1	1	1	

POP = progestogen-only pill, LNG/ETG = levonorgestrel and etonogestrel
DMPA = depot medroxyprogesterone acetate, NET-EN = norethisterone enanthate

Progestogen-only contraceptives (POCs)

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c) Protease inhibitors:				**Evidence:** Protease inhibitors do not appear to have significant risk of interactions with POCs *(107, 108)*.
ritonavir-boosted atazanavir (ATV/r)	1	1	1	
ritonavir-boosted lopinavir (LPV/r)	1	1	1	
ritonavir-boosted darunavir (DRV/r)	1	1	1	
ritonavir (RTV)	1	1	1	
d) Integrase inhibitors:				
raltegravir (RAL)	1	1	1	**Evidence:** Integrase inhibitors do not appear to have significant risk of interactions with POCs *(107, 108)*.
dolutegravir (DTG)	1	1	1	
HIV pre-exposure prophylaxis (PrEP) [NEW]				
a) NRTI: tenofovir-emtricitabine (TDF/FTC)	1	1	1	**Evidence:** A systematic review (2024) examined the body of evidence on drug interactions between hormonal contraception and antiretroviral drugs (ARVs), including drugs used for HIV PrEP *(107)*. Of the 49 articles included in this review, 6 studies reported results on the concomitant use of hormonal contraception and PrEP (3 evaluated oral TDF/FTC, 1 the DPV ring and 2 injectable CAB). Two studies were secondary analyses of data from RCTs *(109, 110)* and 4 were non-randomized trials focused on pharmacokinetic measures *(111–114)*. One additional cohort study evaluated BMD among women taking oral TDF/FTC for ART *(115)*. Limited evidence found no significant differences for risk of pregnancy, PrEP effectiveness, or adverse events for women using hormonal contraception and taking PrEP. Pharmacokinetic evidence also does not suggest any potential drug interactions between hormonal contraceptives and PrEP.
b) NNRTI: dapivirine (DPV) ring	1	1	1	
c) Integrase inhibitors: cabotegravir (CAB)	1	1	1	

Progestogen-only contraceptives (POCs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
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Anticonvulsant therapy				
a) Certain anti-convulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3	DMPA=1; NET-EN=2	2	**Clarification:** Although the interaction of certain anticonvulsants with POPs, NET-EN and LNG/ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs, NET-EN and LNG/ETG implants. Whether increasing the hormone dose of POPs alleviates this concern remains unclear. Use of other contraceptives should be encouraged for women who are long-term users of any of these drugs. Use of DMPA is Category 1 because its effectiveness is not decreased by the use of certain anticonvulsants. **Evidence:** Use of certain anticonvulsants may decrease the effectiveness of POCs *(116)*.
b) Lamotrigine	1	1	1	**Evidence:** No drug interactions have been reported among women with epilepsy taking lamotrigine and using POCs *(116)*.
Antimicrobial therapy				
a) Broad-spectrum antibiotics	1	1	1	
b) Antifungals	1	1	1	
c) Antiparasitics	1	1	1	
d) Rifampicin or rifabutin therapy	3	DMPA=1; NET-EN=2	2	**Clarification:** Although the interaction of rifampicin or rifabutin with POPs, NET-EN and LNG/ETG implants is not harmful to women, it is likely to reduce the effectiveness of POPs, NET-EN and LNG/ETG implants. Whether increasing the hormone dose of POPs alleviates this concern remains unclear. Use of other contraceptives should be encouraged for women who are long-term users of any of these drugs. Use of DMPA is Category 1 because its effectiveness is not decreased by the use of rifampicin or rifabutin.

ART: antiretroviral therapy; ARV: antiretroviral (drug); ß-hCG: beta-human chorionic gonadotropin; BF: breastfeeding; BMD: bone mineral density; BMI: body mass index; CD4: cluster of differentiation 4; CIN: cervical intraepithelial neoplasia; COC: combined oral contraceptives; CVD: cardiovascular disease; DVT: deep vein thrombosis; HbA1c: haemoglobin A1c; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; MEC: *Medical eligibility criteria for contraceptive use* (this publication); MI: myocardial infarction; NA: not applicable; PE: pulmonary embolism; PID: pelvic inflammatory disease; POI: progestogen-only injectable; PrEP: pre-exposure prophylaxis; RCT: randomized controlled trial; SLE: systemic lupus erythematosus; SVT: superficial venous thrombosis.

5.2.5 Recommendations reviewed for the sixth edition of the MEC

These recommendations were reviewed according to WHO requirements for guideline development, as part of the preparation of this edition of the MEC. The population, intervention, comparator, outcome (PICO) questions developed by the GDG and the databases searched to retrieve the evidence, which guided the preparation of systematic reviews, are described in greater detail in the web annex.

5.2.6 Additional comments

Past ectopic pregnancy

Women with past ectopic pregnancy: POP users have a higher absolute rate of ectopic pregnancy compared with those using other POCs, but the rate is still lower than among women using no method. The 75 µg desogestrel-containing pill inhibits ovulation in most cycles, which suggests a low risk of ectopic pregnancy.

Hypertension

Women with vascular disease: There is concern about hypoestrogenic effects and reduced high-density lipoprotein (HDL) levels, particularly among users of injectable contraceptives DMPA and NET-EN. However, there is little concern about these effects among users of POPs or LNG/ETG implants. The effects of DMPA and NET-EN may persist for some time after discontinuation.

Deep vein thrombosis/pulmonary embolism (DVT/PE)

Women with DVT/PE: Women on anticoagulation therapy who have a history of haemorrhagic ovarian cysts may benefit from DMPA use.

Current and history of ischaemic heart disease

Women with current or past ischaemic heart disease: There is concern about hypoestrogenic effects and reduced HDL levels, particularly among users of DMPA and NET-EN. However, there is little concern about these effects among users of POPs or LNG/ETG implants. The effects of DMPA and NET-EN may persist for some time after discontinuation.

Stroke

There is concern regarding hypoestrogenic effects and reduced HDL levels, particularly among users of DMPA and NET-EN. However, there is little concern about these effects among users of POPs or LNG/ETG implants. The effects of DMPA and NET-EN may persist for some time after discontinuation.

Systemic lupus erythematosus (SLE)

Women with SLE who also have severe thrombocytopenia: Severe thrombocytopenia increases the risk of bleeding. POCs may be useful in the treatment of menorrhagia in these women. However, given the increased or erratic bleeding that may be seen on initiation of DMPA and its irreversibility for 11–13 weeks after administration, initiation of this method in women with severe thrombocytopenia should be done with caution.

Headaches

Aura is a specific focal neurological symptom. For more information on this and other diagnostic criteria, see *The international classification of headache disorders, second edition (2004)*, by the Headache Classification Subcommittee of the International Headache Society *(117)*. There is concern that severe headaches may increase with use of NET-EN, DMPA and implants. The effects of NET-EN and DMPA may persist for some time after discontinuation.

Vaginal bleeding patterns

Healthy women: Irregular menstrual bleeding patterns are common among healthy women. POC use frequently induces an irregular bleeding pattern. Implant use may induce irregular bleeding patterns, especially during the first 3–6 months, but these patterns may persist longer. ETG users are more likely than LNG users to develop amenorrhoea.

Unexplained vaginal bleeding

Women with unexplained vaginal bleeding: POCs may cause irregular bleeding patterns, which may mask symptoms of underlying pathology. The effects of DMPA and NET-EN may persist for some time after discontinuation.

Cervical cancer

Women awaiting treatment: There is some theoretical concern that POC use may affect the prognosis of the existing disease. While awaiting treatment, these women may use POCs. In general, treatment of cervical cancer renders a woman sterile.

Breast disease

Women with breast cancer: Breast cancer is a hormonally sensitive tumour. POC use may worsen the prognosis of women with current or recent breast cancer.

Endometrial cancer

Women awaiting treatment: These women may use POCs. In general, treatment of endometrial cancer renders a woman sterile.

Ovarian cancer

Women awaiting treatment: These women may use POCs. In general, treatment of ovarian cancer renders a woman sterile.

Uterine fibroids

All women: POCs do not appear to cause growth of uterine fibroids.

Pelvic inflammatory disease (PID)

Women with STIs: Whether POCs, like COCs, reduce the risk of PID among women with STIs is unknown, but they do not protect against HIV or lower genital tract STIs.

Diabetes

Women with diabetic nephropathy/retinopathy/ neuropathy, other vascular disease, or diabetes of > 20 years' duration: There is concern regarding hypoestrogenic effects and reduced HDL levels, particularly among users of DMPA and NET-EN. The effects of DMPA and NET-EN may persist for some time after discontinuation. Some POCs may increase the risk of vascular thrombosis, although this increase is substantially less than with COCs.

History of cholestasis

History of COC-related cholestasis: Theoretically, this may predict subsequent cholestasis with POC use, but this has not been documented.

Liver tumours

Women with hepatocellular adenoma: There is no evidence regarding hormonal contraceptive use among women with hepatocellular adenoma.

Healthy women: COC use in healthy women is associated with development and growth of hepatocellular adenoma, but it is not known whether other hormonal contraceptives have similar effects.

Iron-deficiency anaemia

Healthy women: Changes in the menstrual pattern associated with POC use have little effect on haemoglobin levels.

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5.3 Emergency contraceptive pills (ECPs)

ECPs – sometimes referred to as morning after pills or postcoital contraceptives – work by preventing or delaying ovulation. They do not work if the woman is already pregnant. They should be taken as soon as possible and up to five days after unprotected sexual intercourse. The following ECPs are discussed in this document: levonorgestrel (LNG) 0.75 mg and 1.5 mg, ulipristal acetate (UPA) 30 mg, and combined oral contraceptives (COCs).

5.3.1 Recommendations for ECPs

Emergency contraceptive pills (ECPs)

ECPs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category			Clarifications/Evidence
	COC	LNG	UPA[a]	
COC = combined oral contraceptive, LNG = levonorgestrel contraceptive, UPA = ulipristal acetate				
Pregnancy	NA	NA	NA	**Clarification:** Although this method is not indicated for a woman with a known or suspected pregnancy, there is no known harm to the woman, the course of her pregnancy, or the fetus if ECPs are accidentally used.
Breastfeeding (BF)	1	1	2	**Clarification:** BF is not recommended for 1 week after taking UPA since it is excreted in breast-milk. Breast-milk should be expressed and discarded during that time *(1)*.
Past ectopic pregnancy	1	1	1	
Obesity	1	1	1	**Clarification:** ECPs may be less effective among women with BMI ≥ 30 kg/m^2 than among women with BMI < 25 kg/m^2. Despite this, there are no safety concerns. **Evidence:** There is limited evidence from 1 study that suggests obese women with BMI ≥ 30 kg/m^2 experience an increased risk of pregnancy after use of LNG compared with women with BMI < 25 kg/m^2 *(2)*. Two studies suggest obese women may also experience an increased risk of pregnancy after use of UPA compared with non-obese women, though this increase was not significant in 1 study *(2, 3)*.

Emergency contraceptive pills (ECPs)

ECPs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category			Clarifications/Evidence
	COC	LNG	UPA[a]	
COC = combined oral contraceptive, LNG = levonorgestrel contraceptive, UPA = ulipristal acetate				
History of severe cardiovascular disease (CVD)[b] (ischaemic heart disease, cerebrovascular attack, or other thromboembolic conditions)	2	2	2	
Migraine[b]	2	2	2	
Severe liver disease[b] (including jaundice)	2	2	2	
CYP3A4 inducers (e.g. rifampicin, phenytoin, phenobarbital, carbamazepine, efavirenz, fosphenytoin, oxcarbazepine, primidone, rifabutin, St John's wort/*Hypericum perforatum* [REVIEWED]	1	1	1	**Clarification:** Strong CYP3A4 inducers may reduce the effectiveness of ECPs. **Evidence:** According to labelling information, rifampicin markedly decreases UPA levels by 90% or more which may decrease its efficacy *(1, 4)*. Theoretical concerns therefore extend to use of other CYP3A4 inducers as well as to COC and LNG ECPs, which have similar metabolic pathways to UPA. No identified studies examined contraceptive failure or ovulation among women taking efavirenz (EFV) and ECPs. A small pharmacokinetic study found that concomitant EFV use decreased LNG levels in women taking LNG ECP (1.5 mg) by 56% compared with LNG ECP alone *(5)*. In another small pharmacokinetic study, EFV users receiving 1.5 mg LNG had 50% lower LNG concentrations through 8 hours and 47% shorter half-life compared with dolutegravir (DTG) controls. CYP2B6 poor metabolizer status exacerbated this effect. With double dose ECP (3.0 mg LNG), LNG maximum serum concentration (Cmax) and area under the curve (AUC) 0–8 hours among women receiving 3.0 mg were similar to controls taking DTG-based ART and receiving 1.5 mg LNG ECP, but half-life was 46% shorter (median: 11.8 hours vs 24.0 hours) *(6, 7)*. No identified studies examined ECP failure or ovulation among women taking 1.5 mg or 3.0 mg LNG ECP.

Emergency contraceptive pills (ECPs)

ECPs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category			Clarifications/Evidence
	COC	LNG	UPA[a]	
COC = combined oral contraceptive, LNG = levonorgestrel contraceptive, UPA = ulipristal acetate				
ECP use more than once in a menstrual cycle a [REVIEWED]	1	1	1	**Evidence:** A systematic review summarizing the evidence on the safety of repeated use of ECPs identified 6 studies. Four studies of repeated LNG use provided very-low-certainty evidence for all outcomes *(8–11)*. One study observed increased risk of ectopic pregnancy with repeated ECP use (1.5 mg LNG) compared with single use *(8)*; 1 study reported few (3%) serious adverse events with repeated pericoital use (1.5 mg LNG; mean 4–7 doses per month) *(9)*; and 2 analyses of overlapping study populations with ECP failure found no differences in pregnancy, fetal/neonatal, infant or child development outcomes comparing higher (2.25–9 mg LNG) and lower (0.75–1.5 mg LNG) doses *(10–11)*. Two studies of repeated UPA use provided very-low-certainty evidence for all outcomes *(12–13)*. One study observed no serious adverse events, no abnormal laboratory results and normal endometrial biopsies with UPA (30 mg, 4–6 doses/month) *(12)*. One study observed no serious adverse events with UPA (10 mg, 20 mg or 50 mg for 10 days) compared with placebo *(13)*.
Rape[b]	1	1	1	

BMI: body mass index; MEC: *Medical eligibility criteria for contraceptive use* (this publication); N/A: not applicable.

5.3.2 Recommendations reviewed for the sixth edition of the MEC

These recommendations were reviewed according to WHO requirements for guideline development, as part of the preparation of this edition of the MEC. The population, intervention, comparator, outcome (PICO) questions developed by the GDG and the databases searched to retrieve the evidence, which guided the preparation of systematic reviews, are described in greater detail in the web annex.

5.3.3 Additional comments

History of severe cardiovascular disease, migraine and severe liver disease (including jaundice)

All women: The duration of use of ECPs is less than that of regular use of COCs or POPs and thus would be expected to have a lower risk for adverse health outcomes.

Rape

Women who are survivors of rape: There are no restrictions for the use of ECPs in cases of rape.

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5.4 Intrauterine devices (IUDs)

5.4.1 Recommendations for IUDs

Intrauterine devices (IUDs)

IUDs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Personal characteristics and reproductive history			
Pregnancy	4	4	**Clarification:** The IUD is not indicated during pregnancy and should not be used because of the risk of serious pelvic infection and septic spontaneous abortion.
Age			**Evidence:** Risks of pregnancy, infection and perforation are low among IUD users of any age. Heavy bleeding or removals for bleeding do not seem to be associated with age. Young women using Cu-IUDs may have an increased risk of expulsion compared with older Cu-IUD users *(1)*.
a) Menarche to < 20 years	2	2	
b) ≥ 20 years	1	1	
Parity			**Evidence:** Risks of pregnancy, infection, perforation and expulsion are low among all IUD users, and differences by parity may not be clinically meaningful. Data do not suggest an increased delay in return to fertility for nulliparous IUD users *(2, 3, 4–7)*.
a) Nulliparous	2	2	
b) Parous	1	1	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Postpartum (breastfeeding [BF] or non-BF women, including caesarean section)[a] [REVIEWED]			
a) < 48 hours, including insertion immediately after delivery of the placenta:			**Evidence:** Immediate postpartum Cu-IUD insertion, particularly when insertion occurs immediately after delivery of the placenta, is associated with lower expulsion rates than delayed postpartum insertion. Additionally, post-placental placement at the time of caesarean section has lower expulsion rates than post-placental vaginal insertions. Insertion complications of perforation and infection are not increased by IUD placement at any time during the postpartum period *(8–21)*. Among IUD users, BF may increase the risk of uterine perforation compared with those not BF at the time of IUD insertion; however, the absolute risk of perforation is low regardless of BF status. There was no consistent evidence for increased risk of other IUD-related adverse events (expulsion) for BF vs non-BF women, and no evidence for increased risks of adverse events (bleeding or infection) among BF women using an IUD compared with BF women using another contraceptive method. One randomized controlled trial (RCT) found that immediate insertion of the LNG-IUD was associated with decreased BF duration compared with delayed insertion *(22)*. Two other RCTs assessing early vs delayed initiation of progestogen-only contraceptives (POCs) failed to show a difference in BF outcomes *(23, 24)*. In other studies, initiation of LNG-IUD at 4 weeks postpartum or later demonstrated no detrimental effect on BF outcomes *(25–27)*. Evidence did not suggest increased risk of adverse BF outcomes (e.g. supplementation, milk production or exclusivity) or infant growth outcomes among BF women using a Cu-IUD compared with BF women using another non-hormonal method or no method.
BF	1	2	
non-BF	1	1	
b) ≥ 48 hours to < 4 weeks	3	3	
c) ≥ 4 weeks	1	1	
d) Puerperal sepsis	4	4	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Post-abortion[b]			
a) First trimester	1	1	**Clarification:** IUDs can be inserted immediately after first-trimester, spontaneous or induced abortion. **Evidence:** There was no difference in risk of complications for immediate vs delayed insertion of an IUD after abortion. The risk of expulsion was greater when an IUD was inserted following a second-trimester abortion vs a first-trimester abortion. There were no differences in safety or expulsions for post-abortion insertion of an LNG-IUD compared with a Cu-IUD *(28–40)*.
b) Second trimester	2	2	
c) Immediate post-septic abortion	4	4	
Past ectopic pregnancy[b]	1	1	
History of pelvic surgery (see postpartum, including caesarean section)	1	1	
Smoking			
a) Age < 35 years	1	1	
b) Age ≥ 35 years:			
< 15 cigarettes/day	1	1	
≥ 15 cigarettes/day	1	1	
Obesity			
a) ≥ 30 kg/m^2 BMI	1	1	
b) Menarche to < 18 years and ≥ 30 kg/m^2 BMI	1	1	
Blood pressure measurement unavailable	NA	NA	**Clarification:** While a blood pressure measurement may be appropriate for good preventive health care, it is not materially related to safe and effective IUD use. Women should not be denied use of IUDs simply because their blood pressure cannot be measured.

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Cardiovascular disease (CVD)			
Multiple risk factors for arterial CVD (e.g. older age, smoking, diabetes, hypertension and known dyslipidaemias)	1	2	
Hypertension[b]			
For all categories of hypertension, classifications are based on the assumption that no other risk factors for CVD exist. When multiple risk factors do exist, the risk of CVD may increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.			
a) History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	1	2	
b) Adequately controlled hypertension, where blood pressure CAN be evaluated	1	1	
c) Elevated blood pressure levels (properly taken measurements):			
systolic 140–159 or diastolic 90–99 mm Hg	1	1	
systolic ≥ 160 or diastolic ≥ 100 mm Hg	1	2	
d) Vascular disease	1	2	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	
Deep vein thrombosis (DVT)/ pulmonary embolism (PE)[b]			
a) History of DVT/PE	1	2	
b) Acute DVT/PE	1	3	**Evidence:** Although evidence on the risk of venous thrombosis with the use of POCs is inconsistent, any small increased risk is substantially less than that with combined oral contraceptives (COCs) *(41–43)*.
c) DVT/PE and established on anticoagulant therapy	1	2	**Evidence:** Although evidence on the risk of venous thrombosis with the use of POCs is inconsistent, any small increased risk is substantially less than that with COCs *(41–43)*. Limited evidence indicates that insertion of the LNG-IUD does not pose major bleeding risks in women on chronic anticoagulant therapy *(44)*.
d) Family history (first-degree relatives)	1	1	
e) Major surgery:			
with prolonged immobilization	1	2	
without prolonged immobilization	1	1	
f) Minor surgery without immobilization	1	1	
Known thrombogenic mutations (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and antithrombin deficiencies)	1	2	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarifications/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Superficial venous disorders			
a) Varicose veins	1	1	
b) Superficial venous thrombosis (SVT)	1	1	
Current and history of ischaemic heart disease[b]	1	I: 2 C: 3	
Stroke[b] (history of cerebrovascular accident)	1	2	
Known dyslipidaemias without other known cardiovascular risk factors	1	2	**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.
Valvular heart disease			
a) Uncomplicated	1	1	
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis)	2	2	**Clarification:** Prophylactic antibiotics to prevent endocarditis are advised for insertion with complicated valvular heart disease.

Intrauterine devices (IUDs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarification/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Rheumatic diseases			
Systemic lupus erythematosus (SLE)			
People with SLE are at increased risk of ischaemic heart disease, stroke and venous thromboembolism (VTE). Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for CVD are present; these classifications must be modified in the presence of such risk factors. Available evidence indicates that many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives *(45)*.			
	I	C	
a) Positive (or unknown) anti-phospholipid antibodies	1	1	3 **Evidence:** Antiphospholipid antibodies are associated with a higher risk for both arterial and venous thrombosis *(45)*.
b) Severe thrombocytopenia	3	2	2 **Clarification:** Severe thrombocytopenia increases the risk of bleeding. The MEC category should be assessed according to the severity of the thrombocytopenia and its clinical manifestations. In women with very severe thrombocytopenia who are at risk for spontaneous bleeding, consultation with a specialist and certain pretreatments may be warranted. **Evidence:** The LNG-IUD may be a useful treatment for menorrhagia in women with severe thrombocytopenia *(46)*.
c) Immunosuppressive treatment	2	1	2
d) None of the above	1	1	2

Intrauterine devices (IUDs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarification/Evidence
	Cu-IUD	LNG-IUD		
		I	C	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)				
Neurological conditions				
Headaches[b]		I	C	**Clarification:** Any new headaches or marked changes in headaches should be evaluated.
a) Non-migrainous (mild or severe)	1	1	1	
b) Migraine:				
without aura				
age < 35 years	1	2	2	
age ≥ 35 years	1	2	2	
with aura, at any age	1	2	3	
Epilepsy	1		1	
Depressive disorders				
Depressive disorders	1		1	**Clarification:** The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. There is a potential for drug interactions between certain antidepressant medicines and hormonal contraceptives.
Reproductive tract infections and disorders				
Vaginal bleeding patterns		I	C	
a) Irregular pattern without heavy bleeding	1	1	1	
b) Heavy or prolonged bleeding (includes regular and irregular patterns)	2	1	2	**Clarification:** Unusually heavy bleeding should raise the suspicion of a serious underlying condition. **Evidence:** Evidence from studies examining the treatment effects of the LNG-IUD among women with heavy or prolonged bleeding reported no increase in adverse effects and found the LNG-IUD to be beneficial in the treatment of menorrhagia *(47–54)*.

Intrauterine devices (IUDs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)					
Unexplained vaginal bleeding (suspicious for serious condition)	I	C	I	C	**Clarification:** If pregnancy or an underlying pathological condition (e.g. pelvic malignancy) is suspected, it must be evaluated and the MEC category adjusted after evaluation. There is no need to remove the IUD before evaluation.
Before evaluation	4	2	4	2	
Endometriosis	2		1		**Evidence:** LNG-IUD use among women with endometriosis decreased dysmenorrhoea, pelvic pain and dyspareunia *(55–59)*.
Benign ovarian tumours (including cysts)	1		1		
Severe dysmenorrhoea[b]	2		1		
Gestational trophoblastic disease					**Evidence:** Limited evidence suggests that women using an IUD following uterine evacuation for a molar pregnancy are not at increased risk of developing post-molar trophoblastic disease when compared with women using other methods of contraception *(60)*.
a) Decreasing or undetectable β-hCG levels	3		3		
b) Persistently elevated β-hCG levels or malignant disease	4		4		
Cervical ectropion	1		1		
Cervical intraepithelial neoplasia (CIN)[b]	1		2		
Cervical cancer[b] (awaiting treatment)	I	C	I	C	
	4	2	4	2	
Breast disease[b]					
a) Undiagnosed mass	1		2		
b) Benign breast disease	1		1		

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
	I	C	I	C	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)					
c) Family history of cancer	1		1		
d) Breast cancer:					
current	1		4		
past and no evidence of current disease for 5 years	1		3		
Endometrial cancer[b]	4	2	4	2	
Ovarian cancer[b]	3	2	3	2	
Uterine fibroids[b]					**Evidence:** Among women with fibroids, there were no adverse health events with LNG-IUD use, and there was a decrease in symptoms and size of fibroids for some women *(61–67)*.
a) Without distortion of the uterine cavity	1		1		
b) With distortion of the uterine cavity	4		4		
Anatomical abnormalities[b]					
a) Distorted uterine cavity (any congenital or acquired uterine abnormality distorting the uterine cavity in a manner that is incompatible with IUD insertion	4		4		
b) Other abnormalities (including cervical stenosis or cervical lacerations) not distorting the uterine cavity or interfering with IUD insertion	2		2		

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Pelvic inflammatory disease (PID)[b]	I	C	I	C	
a) Past PID (assuming no current risk factors for STIs)					
with subsequent pregnancy	1	1	1	1	
without subsequent pregnancy	2	2	2	2	
b) Current PID	4	2	4	2	**Clarification for continuation:** Treat the PID using appropriate antibiotics. There is usually no need for removal of the IUD if the client wishes to continue its use; for further information, see the WHO publication *Selected practice recommendations for contraceptive use, fourth edition (68)*. Continued use of an IUD depends on the woman's informed choice and her current risk factors for STIs and PID. **Evidence:** Among IUD users treated for PID, there was no difference in clinical course if the IUD was removed or left in place *(69–71)*.
STIs	I	C	I	C	
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	4	2	4	2	**Clarification for continuation:** Treat the STI using appropriate antibiotics. There is usually no need for removal of the IUD if the client wishes to continue its use. Continued use of an IUD depends on the woman's informed choice and her current risk factors for STIs and PID. **Evidence:** There is no evidence regarding whether IUD insertion among women with STIs increases the risk of PID compared with no IUD insertion. Among women who have an IUD inserted, the absolute risk of subsequent PID was low among women with STI at the time of insertion but greater than among women with no STI at the time of IUD insertion *(72)*.
b) Other STIs (excluding HIV and hepatitis)	2	2	2	2	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)					
c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	2	2	2	2	
d) Increased risk of STIs	2/3	2	2/3	2	**Clarification:** IUD insertion may further increase the risk of PID among women at increased risk of STIs, although limited evidence suggests that this risk is low. Current algorithms for determining increased risk of STIs have poor predictive value. Risk of STIs varies by individual behaviour and local STI prevalence. Therefore, while many women at increased risk of STIs can generally have an IUD inserted, some women at increased risk (very high individual likelihood) of STIs should generally not have an IUD inserted until appropriate testing and treatment occur. **Evidence:** Using an algorithm to classify STI risk status among IUD users, 1 study reported that 11% of high-STI-risk women experienced IUD-related complications compared with 5% of those not classified as high risk. In another small study, the incidence of PID after IUD insertion was low (2.2%) in a cohort of women considered to be at high risk based on high background rates of STIs in the general population *(72)*.
HIV/AIDS					
High risk of HIV New guidance on this topic was issued in 2019 *(73)* (https://www.who.int/news/item/29-08-2019-who-revises-recommendations-on-hormonal-contraceptive-use-for-women-at-high-hiv-risk)	I 1	C 1	I 1	C 1	**Clarification:** Many women at high risk of HIV are also at risk of other STIs. For these women, refer to the condition "d) Increased risk of STI" in the previous row of this table (STIs), and refer to the WHO publication *Selected practice recommendations for contraceptive use, fourth edition*, Table 5.1 *(68)*. **Evidence:** High-quality evidence from 1 RCT, along with low-quality evidence from 2 observational studies, suggested no increased risk of HIV acquisition with Cu-IUD use. No studies were identified for LNG-IUDs *(74)*.

Intrauterine devices (IUDs)

IUDs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
	Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)				
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	2	2	2	2	**Evidence:** Among IUD users, limited evidence shows no increased risk of overall complications or infectious complications when comparing women living with HIV with women not living with HIV. IUD use did not adversely affect progression of HIV when compared with hormonal contraceptive use among women living with HIV. Furthermore, IUD use among women living with HIV was not associated with increased risk of sexual transmission of HIV to male partners *(75–82)*. One study found no difference in initiation of antiretroviral therapy (ART) or CD4 count between users and non-users of the LNG-IUD *(83)*.
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	3	2	3	2	**Clarification** for continuation: IUD users with severe or advanced HIV clinical disease should be closely monitored for pelvic infection. **Evidence:** One study found no difference in ART initiation or CD4 count between users and non-users of the LNG-IUD *(83)*.
Other infections					
Schistosomiasis					
a) Uncomplicated	1		1		
b) Fibrosis of the liver (if severe, see cirrhosis)	1		1		
Tuberculosis[b]	I	C	I	C	
a) Non-pelvic	1	1	1	1	
a) Pelvic	4	3	4	3	
Malaria	1		1		

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarification/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Endocrine conditions			
Diabetes			
a) History of gestational disease	1	1	
b) Non-vascular disease:			
non-insulin-dependent	1	2	**Evidence:** Limited evidence on the use of the LNG-IUD among women with insulin-dependent or non-insulin-dependent diabetes suggested that these methods have little effect on short-term or long-term diabetes control (e.g. haemoglobin A1c [HbA1c] levels), haemostatic markers or lipid profile *(84, 85)*.
insulin-dependent	1	2	
c) Nephropathy/ retinopathy/neuropathy	1	2	
d) Other vascular disease or diabetes of > 20 years' duration	1	2	
Thyroid disorders			
a) Simple goitre	1	1	
b) Hyperthyroid	1	1	
c) Hypothyroid	1	1	
Gastrointestinal conditions			
Gall bladder disease			
a) Symptomatic:			
treated by cholecystectomy	1	2	
medically treated	1	2	
current	1	2	
b) Asymptomatic	1	2	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarification/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
History of cholestasis[b]			
a) Pregnancy-related	1	1	
b) Past-COC related	1	2	
Viral hepatitis			
a) Acute or flare	1	1	
b) Carrier	1	1	
c) Chronic	1	1	
Cirrhosis			
a) Mild (compensated)	1	1	
b) Severe (decompensated)	1	3	
Liver tumours[b]			
a) Benign:			
focal nodular hyperplasia	1	2	
hepatocellular adenoma	1	3	
b) Malignant (hepatoma)	1	3	
Anaemias			
Thalassaemia[b]	2	1	
Sickle cell disease[b]	2	1	
Iron-deficiency anaemia[b]	2	1	

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
	I	C	I	C	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)					
Drug interactions					
Antiretroviral therapy (ART)[a] [REVIEWED]	I	C	I	C	**Clarification:** There is no known interaction between ART and IUD use. However, severe or advanced HIV clinical disease (WHO stage 3 or 4) as a condition is classified as Category 3 for initiation and Category 2 for continuation. Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2) is classified as Category 2 for both initiation and continuation.
a) Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs):					
abacavir (ABC)	2/3	2	2/3	2	
tenofovir (TDF)	2/3	2	2/3	2	
zidovudine (AZT)	2/3	2	2/3	2	
lamivudine (3TC)	2/3	2	2/3	2	
didanosine (DDI)	2/3	2	2/3	2	
emtricitabine (FTC)	2/3	2	2/3	2	
b) Non-nucleoside/nucleotide reverse transcriptase inhibitors (NNRTIs):					
efavirenz (EFV)	2/3	2	2/3	2	
etravirine (ETR)	2/3	2	2/3	2	
nevirapine (NVP)	2/3	2	2/3	2	
rilpivirine (RPV)	2/3	2	2/3	2	
c) Protease inhibitors:					
ritonavir-boosted atazanavir (ATV/r)	2/3	2	2/3	2	
ritonavir-boosted lopinavir (LPV/r)	2/3	2	2/3	2	
ritonavir-boosted darunavir (DRV/r)	2/3	2	2/3	2	
ritonavir (RTV)	2/3	2	2/3	2	

Intrauterine devices (IUDs)

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation				Clarification/Evidence
	Cu-IUD		LNG-IUD		
	I	C	I	C	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)					
d) Integrase inhibitors:					
raltegravir (RAL)	2/3	2	2/3	2	
dolutegravir (DAL)	2/3	2	2/3	2	
HIV pre-exposure prophylaxis (prep) [NEW]					
a) NRTI: tenofovir-emtricitabine (TDF/FTC)	1		1		**Evidence:** A systematic review (2024) examined the body of evidence on drug interactions between hormonal contraception and antiretroviral drugs (ARV), including drugs used for HIV PrEP *(86)*. Of the 49 articles included in this review, 6 studies reported results on the concomitant use of hormonal contraception and PrEP (3 evaluated oral TDF/FTC, 1 the DPV ring and 2 injectable CAB). Two studies were secondary analyses of data from RCTs *(87, 88)* and 4 were non-randomized trials focused on pharmacokinetic measures *(89–92)*. One additional cohort study evaluated bone mineral density (BMD) among women taking oral TDF/FTC for ART *(93)*. Limited evidence found no significant differences for risk of pregnancy, PrEP effectiveness or adverse events for women using hormonal contraception and taking PrEP. Pharmacokinetic evidence also does not suggest any potential drug interactions between hormonal contraception and PrEP.
b) NNRTI: dapivirine (DPV) ring	1		1		
c) Integrase inhibitors: cabotegravir (CAB)	1		1		
Anticonvulsant therapy					
a) Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	1		1		**Evidence:** Limited evidence suggests that use of certain anticonvulsants does not interfere with the contraceptive effectiveness of the LNG-IUD *(94)*.
b) Lamotrigine	1		1		**Evidence:** No drug interactions have been reported among women with epilepsy taking lamotrigine and using the LNG-IUD *(95)*.

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Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation		Clarification/Evidence
	Cu-IUD	LNG-IUD	
Cu-IUD = copper-bearing IUD, LNG-IUD = levonorgestrel-releasing IUD (20 µg/24 hours)			
Antimicrobial therapy			
a) Broad-spectrum antibiotics	1	1	
b) Antifungals	1	1	
c) Antiparasitics	1	1	
d) Rifampicin or rifabutin therapy	1	1	**Evidence:** One cross-sectional survey found that rifabutin had no impact on the effectiveness of LNG-IUD *(94)*.

ART: antiretroviral therapy; ß-hCG: beta-human chorionic gonadotropin; BF: breastfeeding; BMD: bone mineral density; BMI: body mass index; CD4: cluster of differentiation 4; COC: combined oral contraceptive (pill); CVD: cardiovascular disease; DVT: deep vein thrombosis; HbA1c: haemoglobin A1c; MEC: *Medical eligibility criteria for contraceptive use* (this publication); NA: not applicable; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; PE: pulmonary embolism; PID: pelvic inflammatory disease; POC: progestogen-only contraceptive; PrEP: pre-exposure prophylaxis; RCT: randomized controlled trial SLE: systemic lupus erythematosus; SVT: superficial venous thrombosis.

Recommendations reviewed for the sixth edition of the MEC

These recommendations were reviewed according to WHO requirements for guideline development, as part of the preparation of this edition of the MEC. The population, intervention, comparator, outcome (PICO) questions developed by the GDG and the databases searched to retrieve the evidence, which guided the preparation of systematic reviews, are described in greater detail in the web annex.

5.4.2 Additional comments

Puerperal sepsis

Women with puerperal sepsis: Insertion of an IUD may substantially worsen the condition.

Post-abortion

Women with immediate post-septic abortion: Insertion of an IUD may substantially worsen the condition.

Past ectopic pregnancy

Women with past ectopic pregnancy: The absolute risk of ectopic pregnancy is extremely low due to the high effectiveness of IUDs. However, when a woman becomes pregnant during IUD use, the relative likelihood of ectopic pregnancy is greatly increased.

Hypertension

Women with hypertension: There is theoretical concern about the effect of levonorgestrel (LNG) on lipids in this population. There is no restriction for copper-bearing IUDs (Cu-IUDs).

Deep vein thrombosis/pulmonary embolism (DVT/PE)

Women on chronic anticoagulation therapy: The LNG-IUD may be a useful treatment for heavy menstrual bleeding in this population.

Current and history of ischaemic heart disease

Women with current or past history of ischaemic heart disease: There is theoretical concern about the effect of LNG on lipids. There is no restriction for Cu-IUDs.

Stroke

Healthy women: There is theoretical concern about the effect of LNG on lipids. There is no restriction for Cu-IUDs.

Headaches

Aura is a specific focal neurological symptom. For more information on this and other diagnostic criteria, see *The international classification of headache disorders*, second edition (2004), by the Headache Classification Subcommittee of the International Headache Society *(96)*.

Severe dysmenorrhoea

All women: Dysmenorrhoea may intensify with Cu-IUD use. LNG-IUD use has been associated with reduction of dysmenorrhoea.

Cervical intraepithelial neoplasia (CIN)

Women with CIN: There is some theoretical concern that LNG-IUDs may hasten the progression of CIN.

Cervical cancer

Women awaiting treatment: There is concern about the increased risk of infection and bleeding at insertion. The IUD will likely need to be removed at the time of treatment but, until then, the woman is at risk of pregnancy.

Breast disease

Women with breast cancer: Breast cancer is a hormonally sensitive tumour. Concerns about progression of the disease may be less with LNG-IUDs than with COCs or higher-dose POCs.

Endometrial cancer

Women awaiting treatment: There is concern about the increased risk of infection, perforation, and bleeding at insertion. The IUD will likely need to be removed at the time of treatment but, until then, the woman is at risk of pregnancy.

Ovarian cancer

Women awaiting treatment: The IUD will likely need to be removed at the time of treatment but, until then, the woman is at risk of pregnancy.

Uterine fibroids

Women with uterine fibroids without distortion of the uterine cavity: Women with heavy or prolonged bleeding should be assigned the MEC Category for that condition.

Women with uterine fibroids with distortion of the uterine cavity: Pre-existing uterine fibroids that distort the uterine cavity may be incompatible with insertion and proper placement of an IUD.

Anatomical abnormalities

Women with distorted uterine cavity: In the presence of an anatomic abnormality that distorts the uterine cavity, proper IUD placement may not be possible.

Pelvic inflammatory disease (PID)

All women: IUDs do not protect against PID, HIV or STIs.

Women at risk of STIs: In women at low risk of STIs, IUD insertion poses little risk of PID. Current risk of STIs and desire for future pregnancy are relevant considerations.

Tuberculosis (TB)

Women with pelvic TB: Insertion of an IUD may substantially worsen the condition.

History of cholestasis

Women with history of cholestasis: There is concern that a history of cholestasis related to combined hormonal contraceptives (CHCs) may predict subsequent cholestasis with LNG use. Whether there is any risk with use of an LNG-IUD is unclear.

Liver tumours

Women with hepatocellular adenoma: There is no evidence regarding hormonal contraceptive use among women with hepatocellular adenoma.

All women: Given that COC use in healthy women is associated with development and growth of hepatocellular adenoma, it is not known whether other hormonal contraceptives have similar effects.

Thalassaemia, sickle cell disease, iron-deficiency anaemia

There is concern about a risk of increased blood loss with Cu-IUDs.

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5.5 Copper-bearing IUD (Cu-IUD) for emergency contraception (E-IUD)

Use of a copper-bearing IUD (Cu-IUD) for emergency contraception (E-IUD) is highly effective for preventing pregnancy. For this purpose, a Cu-IUD can be inserted within five days of unprotected intercourse. However, when the time of ovulation can be estimated, the Cu-IUD can be inserted beyond five days after intercourse, if necessary, as long as the insertion does not occur more than five days after ovulation.

The eligibility criteria for general Cu-IUD insertion also apply for the insertion of E-IUDs (see section 5.4 on IUDs, pp. 85–108).

5.5.1 Recommendations for E-IUD

Copper-bearing IUD for emergency contraception (E-IUD)

IUDs for emergency contraception do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition	MEC Category	Clarifications/Evidence
Pregnancy	4	**Clarification:** The IUD is not indicated during pregnancy and should not be used because of the risk of serious pelvic infection and septic spontaneous abortion.
Rape		
a) High risk of STI	3	
b) Low risk of STI	1	

IUD: intrauterine device; MEC: *Medical eligibility criteria for contraceptive use* (this publication).

5.5.2 Additional comments

Rape

Women who are survivors of rape: IUDs do not protect against STIs, HIV or pelvic inflammatory disease (PID). Among women with chlamydial infection or gonorrhoea, the potential increased risk of PID with IUD insertion should be avoided. The concern is less for other STIs.

5.6 Progesterone-releasing vaginal ring (PVR) for breastfeeding women

The PVR is a contraceptive method for women who are actively breastfeeding at least four times a day. It consists of a flexible ring that releases 10 µg of progesterone per day. During use, average plasma concentrations of 20 nmol/L are achieved, which are similar to those detected in the average luteal phase in normal fertile women. The PVR can be initiated at four weeks after childbirth and is then worn continuously for three-month periods (approximately 90 days) during breastfeeding. The used PVR requires replacing with a new ring at three-month intervals (± two weeks). The mechanism of contraceptive action of the PVR is through the inhibition of ovulation *(1, 2)*.

5.6.1 Recommendations for the PVR for breastfeeding women

Progesterone-releasing vaginal ring (PVR) for breastfeeding women

PVRs do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition	MEC Category	Clarifications/Evidence
Pregnancy	NA	**Clarification:** Use of PVRs is not required. There is no known harm to the woman, the course of her pregnancy, or the fetus if PVRs are accidentally used during pregnancy.
Breastfeeding (BF) ≥ 4 weeks postpartum[a]	1	**Clarification:** The woman must be actively breastfeeding (i.e. at least 4 BF episodes per day) during PVR use to maintain efficacy. **Evidence:** No differences were observed between various measures of BF performance among PVR users compared with users of non-hormonal or progestogen-only (synthetic progesterone) contraceptives (POCs) during 12 months of observation *(3–8)*. No statistically significant differences in infant weight gain were observed among PVR users compared with women using a non-hormonal contraception or POCs *(5, 7, 9)*, and similar patterns of infant weight gain were observed in 2 studies that compared PVR and copper-bearing intrauterine device (Cu-IUD) users *(8, 10)*. One study reported no significant difference in infant health *(8)* and another study reported similar proportions of infants with any morbidities in the PVR and Cu-IUD groups *(10)*.

BF: breastfeeding; Cu-IUD: copper-bearing intrauterine device; MEC: *Medical eligibility criteria for contraceptive use* (this publication); NA: not applicable; POC: progestogen-only contraceptive.

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5.7 Barrier methods (BARR)

5.7.1 Recommendations for barrier methods

Barrier methods (BARR)				
If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.				
Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	**MEC Category** I = initiation, C = continuation			**Clarifications/Evidence**
	Condom	**Diaphragm**	**Spermicide**	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Personal characteristics and reproductive history				
Pregnancy	NA	NA	NA	**Clarification:** None of these methods are relevant for contraception during known pregnancy. However, for women who continue to be at risk of STI/HIV during pregnancy, the correct and consistent use of condoms is recommended.
Age				
a) Menarche to < 40 years	1	1	1	
b) ≥ 40 years	1	1	1	
Parity				
a) Nulliparous	1	1	1	
b) Parous	1	1	2	**Clarification:** There is a higher risk of cervical cap failure in parous women than in nulliparous women.
Postpartum				
a) < 6 weeks postpartum	1	1	NA	**Clarification:** The diaphragm and cervical cap are unsuitable until uterine involution is complete.
b) ≥ 6 weeks postpartum	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Post-abortion				
a) First trimester	1	1	1	
b) Second trimester	1	1	1	**Clarification:** The diaphragm and cervical cap are unsuitable until 6 weeks after second-trimester abortion.
c) Immediate post-septic abortion	1	1	1	
Past ectopic pregnancy	1	1	1	
History of pelvic surgery	1	1	1	
Smoking				
a) Age < 35 years	1	1	1	
b) Age ≥ 35 years:				
< 15 cigarettes/day	1	1	1	
≥ 15 cigarettes/day	1	1	1	
Obesity[b]				
a) ≥ 30 kg/m^2 BMI	1	1	1	
b) Menarche to < 18 years and ≥ 30 kg/m^2 BMI	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Blood pressure measurement unavailable	NA	NA	NA	**Clarification:** While a blood pressure measurement may be appropriate for good preventive health care, it is not required for safe and effective barrier method use. Women should not be denied the use of barrier methods simply because their blood pressure cannot be measured.
Cardiovascular disease (CVD)				
Multiple risk factors for arterial CVD (e.g. older age, smoking, diabetes, hypertension and known dyslipidaemias)	1	1	1	
Hypertension				
a) History of hypertension, where blood pressure CANNOT be evaluated (including hypertension in pregnancy)	1	1	1	
b) Adequately controlled hypertension, where blood pressure CAN be evaluated	1	1	1	
c) Elevated blood pressure levels (properly taken measurements):				
systolic 140–159 or diastolic 90–99 mm Hg	1	1	1	
systolic ≥ 160 or diastolic ≥ 100 mm Hg	1	1	1	
d) Vascular disease	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	1	1	1	
Deep vein thrombosis (DVT)/ pulmonary embolism (PE)				
a) History of DVT/PE	1	1	1	
b) Acute DVT/PE	1	1	1	
c) DVT/PE and established on anti-coagulant therapy	1	1	1	
d) Family history (first-degree relatives)	1	1	1	
e) Major surgery:				
with prolonged immobilization	1	1	1	
without prolonged immobilization	1	1	1	
f) Minor surgery without immobilization	1	1	1	
Known thrombogenic mutations (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and anti-thrombin deficiencies)	1	1	1	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Superficial venous disorders				
a) Varicose veins	1	1	1	
b) Superficial venous thrombosis (SVT)	1	1	1	
Current and history of ischaemic heart disease	1	1	1	
Stroke (history of cerebrovascular accident)	1	1	1	
Known dyslipidaemias without other known cardiovascular risk factors	1	1	1	**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.
Valvular heart disease[b]				
a) Uncomplicated	1	1	1	
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis)	1	1	2	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Rheumatic diseases				
Systemic lupus erythematosus (SLE)				
a) Positive (or unknown) antiphospholipid antibodies	1	1	1	
b) Severe thrombo-cytopenia	1	1	1	
c) Immunosuppressive treatment	1	1	1	
d) None of the above	1	1	1	
Neurological conditions				
Headaches				
a) Non-migrainous (mild or severe)	1	1	1	
b) Migraine:				
without aura				
age < 35 years	1	1	1	
age ≥ 35 years	1	1	1	
with aura, at any age	1	1	1	
Epilepsy	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Depressive disorders				
Depressive disorders	1	1	1	
Reproductive tract infections and disorders				
Unexplained vaginal bleeding (suspicious for serious condition)				
Before evaluation	1	1	1	**Clarification:** If pregnancy or an underlying pathological condition (e.g. pelvic malignancy) is suspected, it must be evaluated and the MEC category adjusted after evaluation.
Endometriosis	1	1	1	
Benign ovarian tumours (including cysts)	1	1	1	
Severe dysmenorrhoea	1	1	1	
Gestational trophoblastic disease				
a) Decreasing or undetectable β-hCG levels	1	1	1	
b) Persistently elevated β-hCG levels or malignant disease	1	1	1	
Cervical ectropion	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation			Clarifications/Evidence
	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Cervical intraepithelial neoplasia (CIN)	1	1	1	**Clarification:** The cervical cap should not be used. There is no restriction for diaphragm use.
Cervical cancer[b] (awaiting treatment)	1	2	1	**Clarification:** The cervical cap should not be used. There is no restriction for diaphragm use.
Breast disease				
a) Undiagnosed mass	1	1	1	
b) Benign breast disease	1	1	1	
c) Family history of cancer	1	1	1	
d) Breast cancer:				
current	1	1	1	
past and no evidence of current disease for 5 years	1	1	1	
Endometrial cancer	1	1	1	
Ovarian cancer	1	1	1	
Uterine fibroids				
a) Without distortion of the uterine cavity	1	1	1	
b) With distortion of the uterine cavity	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Anatomical abnormalities	1	1	NA	**Clarification:** The diaphragm cannot be used in certain cases of prolapse. Cervical cap use is not appropriate for a client with a markedly distorted cervical anatomy.
Pelvic inflammatory disease (PID)				
a) Past PID (assuming no current risk factors for STIs):				
with subsequent pregnancy	1	1	1	
without subsequent pregnancy	1	1	1	
b) Current PID	1	1	1	
STIs				
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	1	1	1	
b) Other STIs (excluding HIV and hepatitis)	1	1	1	
c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	
d) Increased risk of STIs	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
HIV/AIDS				
High risk of HIV[b]	1	4	4	**Evidence:** Repeated and high-dose use of the spermicide nonoxynol-9 was associated with increased risk of genital lesions, which may increase the risk of acquiring HIV *(1)*.
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)[b]	1	3	3	
Severe or advanced HIV clinical disease (WHO stage 3 or 4)[b]	1	3	3	
Other infections				
Schistosomiasis				
a) Uncomplicated	1	1	1	
b) Fibrosis of the liver	1	1	1	
Tuberculosis				
a) Non-pelvic	1	1	1	
a) Pelvic	1	1	1	
Malaria	1	1	1	
History of toxic shock syndrome (TSS)[b]	1	3	1	
Urinary tract infection (UTI)[b]	1	1	2	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Endocrine conditions				
Diabetes				
a) History of gestational disease	1	1	1	
b) Non-vascular disease:				
non-insulin-dependent	1	1	1	
insulin-dependent	1	1	1	
c) Nephropathy/ retinopathy/ neuropathy	1	1	1	
d) Other vascular disease or diabetes of > 20 years' duration	1	1	1	
Thyroid disorders				
a) Simple goitre	1	1	1	
b) Hyperthyroid	1	1	1	
c) Hypothyroid	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Gastrointestinal conditions				
Gall bladder disease				
a) Symptomatic:				
treated by cholecystectomy	1	1	1	
medically treated	1	1	1	
current	1	1	1	
b) Asymptomatic	1	1	1	
History of cholestasis				
a) Pregnancy-related	1	1	1	
b) Past-COC-related	1	1	1	
Viral hepatitis				
a) Acute or flare	1	1	1	
b) Carrier	1	1	1	
c) Chronic	1	1	1	
Cirrhosis				
a) Mild (compensated)	1	1	1	
b) Severe (decompensated)	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Liver tumours				
a) Benign:				
focal nodular hyperplasia	1	1	1	
hepatocellular adenoma	1	1	1	
b) Malignant (hepatoma)	1	1	1	
Anaemias				
Thalassaemia	1	1	1	
Sickle cell disease	1	1	1	
Iron-deficiency anaemia	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Drug interactions				
Antiretroviral therapy (ART)				
a) Nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs):	1	3	3	**Clarification:** There is no known drug interaction between ART and barrier method use. However, HIV clinical disease (WHO stages 1–4) as conditions are assigned Category 3 for spermicides and diaphragms (see HIV conditions above).
abacavir (ABC)	1	3	3	
tenofovir (TDF)	1	3	3	
zidovudine (AZT)	1	3	3	
lamivudine (3TC)	1	3	3	
didanosine (DDI)	1	3	3	
emtricitabine (FTC)	1	3	3	
b) Non-nucleoside/ nucleotide reverse transcriptase inhibitors (NNRTIs):	1	3	3	
efavirenz (EFV)	1	3	3	
etravirine (ETR)	1	3	3	
nevirapine (NVP)	1	3	3	
rilpivirine (RPV)	1	3	3	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
c) Protease inhibitors:	1	3	3	
ritonavir-boosted atazanavir (ATV/r)	1	3	3	
ritonavir-boosted lopinavir (LPV/r)	1	3	3	
ritonavir-boosted darunavir (DRV/r)	1	3	3	
ritonavir (RTV)	1	3	3	
d) Integrase inhibitors:	1	3	3	
raltegravir (RAL)	1	3	3	
dolutegravir (DTG)	1	3	3	
HIV pre-exposure prophylaxis (PrEP)				
a) NRTIs: tenofovir-emtricitabine (TDF/FTC)	1	1	1	
b) NNRTI: dapivirine (DPV) ring	1	1	1	
c) Integrase inhibitors: cabotegravir	1	1	1	

Barrier methods (BARR)

If there is a risk of sexually transmitted infections (STIs), including HIV, then the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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	Condom	Diaphragm	Spermicide	
Condoms = male latex condoms, male polyurethane condoms, female condoms Diaphragm = diaphragm (with spermicide), cervical cap				
Women with conditions that make pregnancy an unacceptable risk should be advised that barrier methods for pregnancy prevention may not be appropriate for those who cannot use the method consistently and correctly because of their relatively higher typical-use failure rates.				
Anticonvulsant therapy				
a) Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	1	1	1	
b) Lamotrigine	1	1	1	
Antimicrobial therapy				
a) Broad-spectrum antibiotics	1	1	1	
b) Antifungals	1	1	1	
c) Antiparasitics	1	1	1	
d) Rifampicin or rifabutin therapy	1	1	1	
Allergy to latex	3	1	3	**Clarification:** This does not apply to plastic condoms/diaphragms.

ART: antiretroviral therapy; ß-hCG: beta-human chorionic gonadotropin; BMI: body mass index; CIN: cervical intraepithelial neoplasia; COC: combined oral contraceptive; DVT: deep vein thrombosis; MEC: *Medical eligibility criteria for contraceptive use* (this publication); NA: not applicable; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; PE: pulmonary embolism; PID: pelvic inflammatory disease; PrEP: pre-exposure prophylaxis; SLE: systemic lupus erythematosus; SVT: superficial venous thrombosis; TSS: toxic shock syndrome; UTI: urinary tract infection.

5.7.2 Additional comments

Obesity

Women with severe obesity: This condition may make diaphragm and cervical cap placement difficult.

Valvular heart disease

Women with subacute bacterial endocarditis: Risk of urinary tract infection (UTI) with the diaphragm may increase in a client with this condition.

Cervical cancer

Women awaiting treatment: Repeated and high-dose use of nonoxynol-9 can cause vaginal and cervical irritation or abrasions.

High risk of HIV

Category 4 for diaphragm use is assigned due to concerns about the spermicide, not the diaphragm.

Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)

Use of spermicides and/or diaphragms (with spermicide) can disrupt the cervical mucosa, which may lead to increased viral shedding and HIV transmission to uninfected sexual partners.

Severe or advanced HIV clinical disease (WHO stage 3 or 4)

Use of spermicides and/or diaphragms (with spermicide) can disrupt the cervical mucosa, which may lead to increased viral shedding and HIV transmission to uninfected sexual partners.

Toxic shock syndrome (TSS)

All women: TSS has been reported in association with diaphragm use.

Women with history of TSS: Use of diaphragm by women with history of TSS may increase the risk of recurrence.

Urinary tract infection (UTI)

All women: There is a potential increased risk of UTI with diaphragms and spermicides.

Reference for section 5.7[10]

1. Wilkinson D, Ramjee G, Tholandi M, Rutherford G. Nonoxynol-9 for preventing vaginal acquisition of HIV infection by women from men. Cochrane Database Syst Rev. 2002;(4):CD003936 (https://doi.org/10.1002/14651858.cd003936).

[10] All references were accessed on 13 May 2025.

5.8 Fertility-awareness-based (FAB) methods

FAB methods of family planning involve identification of the fertile days of the menstrual cycle, whether by observing fertility signs such as cervical secretions and basal body temperature (i.e. symptoms-based methods), or by monitoring cycle days (calendar-based methods). FAB methods may include the use of digital platforms.

FAB methods can be used in combination with abstinence or barrier methods during the fertile days. If barrier methods are used, refer to section 5.7 on barrier methods.

There are no medical conditions that become worse because of use of FAB methods. In general, these methods can be provided without concern for health effects to people who choose them; therefore, the MEC's four-category scale does not apply to these methods. However, there are several conditions that make their use more complex. The existence of these conditions suggests that (i) use of FAB methods should be delayed until the condition is corrected or resolved, or (ii) use of FAB methods will require caution, meaning that special counselling for the client (from a more highly trained provider) is generally necessary to ensure correct use. The need for caution or delay in the use of these FAB methods is indicated by the categories assigned in the table per condition:
A = accept, C = caution, D= delay.

5.8.1 Symptoms-based methods

Symptoms-based methods include the cervical mucus method (also called the ovulation method) and the Two Day Method, which are both based on the evaluation of cervical mucus, and the sympto-thermal method, which is a double-check method based on evaluation of cervical mucus to determine the first fertile day and evaluation of cervical mucus and temperature to determine the last fertile day.

5.8.2 Calendar-based methods

Calendar-based methods include the Calendar Rhythm Method and the Standard Days Method, which avoids intercourse on cycle days 8–19.

5.8.3 Recommendations for FAB methods

Fertility-awareness-based (FAB) methods

Fertility-awareness-based (FAB) methods do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation A = accept, C = caution, D = delay		Clarifications/Evidence
A = accept: There is no medical reason to deny the particular FAB method to a woman in this circumstance. C = caution: The method is normally provided in a routine setting, but with extra preparation and precautions. For FAB methods, this usually means that special counselling may be needed to ensure correct use of the method by a woman in this circumstance. D = delay: Use of this method should be delayed until the condition is evaluated or corrected. Alternative temporary methods of contraception should be offered.			
	SYM symptoms-based method	CAL calendar-based method	
Women with conditions that make pregnancy an unacceptable risk should be advised that FAB methods may not be appropriate for them because of their relatively higher typical-use failure rates.			
Personal characteristics and reproductive history			
Pregnancy	NA	NA	**Clarification:** FAB methods are not relevant during pregnancy.
Life stage			**Clarification:** Menstrual irregularities are common in post-menarche and perimenopause and may complicate the use of FAB methods.
a) Post-menarche	C	C	
b) Perimenopause	C	C	
Breastfeeding (BF)[b]			
a) < 6 weeks postpartum	D	D	
b) ≥ 6 weeks	C	D	
c) After menses begins	C	C	
Postpartum[a] (in non-BF women)			
a) < 4 weeks	D	D	
b) ≥ 4 weeks	A	D	

Fertility-awareness-based (FAB) methods

Fertility-awareness-based (FAB) methods do not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] recommendations reviewed for the MEC sixth edition, [b] additional comments after this table	MEC Category I = initiation, C = continuation A = accept, C = caution, D = delay	Clarifications/Evidence
A = accept: There is no medical reason to deny the particular FAB method to a woman in this circumstance. C = caution: The method is normally provided in a routine setting, but with extra preparation and precautions. For FAB methods, this usually means that special counselling may be needed to ensure correct use of the method by a woman in this circumstance. D = delay: Use of this method should be delayed until the condition is evaluated or corrected. Alternative temporary methods of contraception should be offered.		
	SYM symptoms-based method	CAL calendar-based method
Women with conditions that make pregnancy an unacceptable risk should be advised that FAB methods may not be appropriate for them because of their relatively higher typical-use failure rates.		
Post-abortion[b]	C	D
Reproductive tract infections and disorders		
Irregular vaginal bleeding[b]	D	D
Vaginal discharge[b]	D	A
Other		
Use of drugs that affect cycle regularity, hormones and/or fertility signs[b]	C/D	C/D
Diseases that elevate body temperature[b]		
a) Chronic diseases	C	A
b) Acute diseases	D	A

BF: breastfeeding; MEC: *Medical eligibility criteria for contraceptive use* (this publication); NA: not applicable.

5.8.4 Additional comments

Breastfeeding

Breastfeeding women: FAB methods may be less effective when used during breastfeeding than when not breastfeeding.

Less than six weeks postpartum: Women who are exclusively breastfeeding and are amenorrhoeic are unlikely to have sufficient ovarian function to produce detectable fertility signs and hormonal changes during the first six weeks postpartum. However, the likelihood of resumption of fertility increases with time postpartum and with substitution of breast milk by other foods.

After menses have begun postpartum: When the woman notices fertility signs (particularly cervical secretions), she can use a symptoms-based method. First postpartum menstrual cycles in breastfeeding women vary significantly in length. It takes several cycles for the return to regularity. When she has had at least three postpartum menses and her cycles are regular again, she can use the Calendar Rhythm Method. When she has had at least four postpartum menses and her most recent cycle was 26–32 days long, she can use the SDM. Prior to that time, a barrier method should be offered if the woman plans to use a FAB method later.

Postpartum

Less than four weeks postpartum: Non-breastfeeding woman are not likely to have sufficient ovarian function to either require a FAB method or have detectable fertility signs or hormonal changes prior to four weeks postpartum. Although the risk of pregnancy is low, a method that is appropriate for the postpartum period should be offered.

Four weeks or more postpartum: Non-breastfeeding women are likely to have sufficient ovarian function to produce detectable fertility signs and/or hormonal changes at this time; the likelihood increases rapidly with time postpartum. A woman can use calendar-based methods as soon as she has completed at least three postpartum menses, and her cycles are regular again. A woman can use the SDM when she has had at least four postpartum menses and her most recent cycle was 26–32 days long. Methods appropriate for the postpartum period should be offered prior to that time.

Post-abortion

Post-abortion women: These women are likely to have sufficient ovarian function to produce detectable fertility signs and/or hormonal changes; the likelihood increases with time post-abortion. A woman can start using calendar-based methods after she has had at least one post-abortion menses; if most of her cycles prior to this pregnancy were 26–32 days long, she can use the SDM. Methods appropriate for the post-abortion period should be offered prior to that time.

5.9 Lactational amenorrhoea method (LAM)

The lactational amenorrhoea method (LAM) does not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Women with conditions that make pregnancy an unacceptable risk should be advised that the LAM may not be appropriate for them because of its relatively higher typical-use failure rates.

The Bellagio Consensus provided the scientific basis for defining the conditions under which breastfeeding can be used safely and effectively for birth-spacing purposes, and programmatic guidelines were developed for the use of the LAM in family planning *(1)*. Use of the LAM requires three conditions, all of which must be met to ensure adequate protection from an unplanned pregnancy:

1) amenorrhoea
2) fully or nearly fully breastfeeding
3) less than six months postpartum.

Further information about the LAM is available in the current edition of *Family planning: a global handbook for providers (2)*.

The main indications for breastfeeding remain the need to provide an ideal food for the infant and to protect it against disease. There are no medical conditions in which the use of the LAM is restricted and there is no documented evidence of its negative impact on maternal health. However, certain conditions or obstacles which affect breastfeeding may also affect the duration of amenorrhoea, making this a less useful choice for family planning purposes. These are described below.

HIV

Breastfeeding should be promoted, protected, and supported in all populations, for all women who are HIV-negative or of unknown HIV status. A woman living with HIV, however, can transmit the virus to her child through breastfeeding. Yet breastfeeding, and especially early and exclusive breastfeeding, is one of the most critical factors for improving child survival. Breastfeeding also confers many other benefits in addition to reducing the risk of death.

There is now strong evidence that giving antiretroviral drugs (ARVs) to either the HIV-positive mother or the HIV-exposed infant or both can significantly reduce the risk of transmitting HIV through breastfeeding *(3)*. This transforms the landscape in which decisions should be made by national health authorities and individual mothers. In the presence of ARVs – either lifelong antiretroviral therapy (ART) to the mother or other ARV interventions to the mother or infant – the infant can receive all the benefits of breastfeeding with little risk of acquiring HIV. A strong WHO recommendation as stated in 2025 guidance is, "In settings in which the national programme recommends replacement feeding, mothers living with HIV who are receiving ART and have suppressed viral loads should be offered the choice to breastfeed and be supported in their infant feeding choice" *(4)*.

As stated by a 2016 WHO recommendation which is still current, "Mothers living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer (similar to the general population) while being fully supported for ART adherence" *(3)*. Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast-milk can be provided. When mothers decide to stop breastfeeding, they should stop gradually within one month and infants should be provided with safe and adequate replacement feeds to enable normal growth and development.

If the infant is HIV-negative or of unknown HIV status:

According to a 2016 WHO recommendation which is still current, "Mothers known to be living with HIV (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first six months of life, introducing appropriate complementary foods thereafter and continue breastfeeding for the first 12 months of life. Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast milk can be provided" *(3)*. This recommendation is premised on the recommendation mentioned in

the previous paragraph, i.e. the mother should also be receiving ART and should be fully supported for ART adherence.

A mother "known to be living with HIV should only give commercial infant formula milk as a replacement feed to her HIV uninfected infant or infant(s) who are of unknown HIV status" when **all** the following specific conditions are met:

- safe water and sanitation are assured at the household level and in the community; **and**
- the mother or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development of the infant; **and**
- the mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition; **and**
- the mother or caregiver can, in the first six months, exclusively give infant formula milk; **and**
- the family is supportive of this practice; **and**
- the mother or caregiver can access health care that offers comprehensive child health services.

If the infant is known to be HIV-positive:
According to a 2016 WHO recommendation which is still valid, the mother is "strongly encouraged to exclusively breastfeed for the first six months of the infant's life and to continue breastfeeding as per the recommendations for the general population, that is up to two years or beyond" *(3)*. Women who are living with HIV should receive skilled counselling to help them with this and should be fully supported for ART adherence. They should also have access to follow-up care and support, including family planning and nutritional support.

Medication used during breastfeeding

In order to protect infant health, breastfeeding is not recommended for women using such drugs as: anti-metabolites, bromocriptine, certain anticoagulants, corticosteroids (high doses), ciclosporin, ergotamine, lithium, mood-altering drugs, radioactive drugs and reserpine.

Conditions affecting the newborn.

Congenital deformities of the mouth, jaw, or palate; newborns who are small-for-date or premature and needing intensive neonatal care; and certain metabolic disorders of the infant can all make breastfeeding difficult.

References for section 5.9[11]

1. Kennedy KI, Rivera R, McNeilly AS, Consensus statement on the use of breastfeeding as a family planning method. Contraception. 1989;39(5):477–96 (https://doi.org/10.1016/0010-7824(89)90103-0).
2. Family planning: a global handbook for providers, 2022 edition. Geneva and Baltimore: World Health Organization Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs; 2022 (https://fphandbook.org).
3. World Health Organization United Nations Children's Fund. Guideline: updates on HIV and infant feeding: the duration of breastfeeding, and support from health services to improve feeding practices among mothers living with HIV. Geneva: WHO; 2016 (https://iris.who.int/handle/10665/246260).
4. Overview of WHO recommendations on HIV and sexually transmitted infection testing, prevention, treatment, care and service delivery. Geneva: World Health Organization; 2025 (https://iris.who.int/handle/10665/381896). LICENCE: CC BY-NC-SA 3.0 IGO.

[11] All references were accessed on 25 July 2025.

5.10 Coitus interruptus (CI)

Coitus interruptus (CI) does not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Women with conditions that make pregnancy an unacceptable risk should be advised that CI may not be appropriate for them because of its relatively higher typical-use failure rates.

CI, also known as withdrawal, is a traditional family planning method in which the man completely removes his penis from the vagina, and away from the external genitalia of the female partner, before he ejaculates. CI prevents sperm from entering the woman's vagina, thereby preventing contact between spermatozoa and the ovum.

This method may be appropriate for couples:

- who are highly motivated and able to use this method effectively;
- with religious or philosophical reasons for not using other methods of contraception;
- who need contraception immediately and have engaged in a sexual act without alternative methods available;
- who need a temporary method while awaiting the start of another method; and/or
- who have intercourse infrequently.

Some benefits of CI are that the method, if used correctly, does not affect breastfeeding and is always available for primary use or use as a back-up method. In addition, CI involves no economic cost or use of chemicals. There are no health risks associated directly with CI.

Men and women who are at high risk of STI/HIV infection should use a condom with each act of intercourse.

CI is unforgiving of incorrect use, and its effectiveness depends on the willingness and ability of the couple to use withdrawal with every act of intercourse.

5.11 Surgical sterilization procedures (STER)

Given that sterilization is a surgical procedure that is intended to be permanent, special care must be taken to ensure that every client makes a voluntary, informed choice of method. Particular attention must be given in the case of young people, nulliparous women, men who have not yet been fathers and clients with mental health problems, including depressive conditions. All clients should be carefully counselled about the intended permanence of sterilization and the availability of alternative, long-term, highly effective methods. This is of extra concern for young people. The national laws and existing norms for the delivery of sterilization procedures must be considered in the decision process.

Transcervical methods of female sterilization are not addressed in these recommendations.

There is no medical condition that would absolutely restrict a person's eligibility for sterilization, although some conditions and circumstances will require that certain precautions are taken, including those where the recommendation is assigned as Category C (caution), D (delay) or S (special). For some of these conditions and circumstances, the theoretical or proven risks may outweigh the advantages of undergoing sterilization, particularly female sterilization. Where the risks of sterilization outweigh the benefits, long-term, highly effective contraceptive methods are a preferable alternative. Decisions in this regard will have to be made on an individual basis, considering the risks and benefits of sterilization versus the risks of pregnancy, and the availability and acceptability of alternative methods that are highly effective.

Sterilization procedures should only be performed by well-trained workers in appropriate clinical settings using proper equipment and supplies. Appropriate service-delivery guidelines, including infection-prevention protocols, should be followed to maximize client safety.

5.11.1 Recommendations for female surgical sterilization

Female surgical sterilization

Sterilization does not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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A = accept: There is no medical reason to deny sterilization to a person with this condition. C = caution: The procedure is normally conducted in a routine setting, but with extra preparation and precautions. D = delay: The procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided. S = special: The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia, and other back-up medical support. For these conditions, the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary methods of contraception should be provided if referral is required or there is otherwise any delay.		
Personal characteristics and reproductive history		
Pregnancy	D	
Young age	C	**Clarification:** Young women, like all women, should be counselled about the permanency of sterilization and the availability of alternative, long-term, highly effective methods. **Evidence:** Studies show that up to 20% of women sterilized at a young age later regret this decision, and that young age is one of the strongest predictors of regret (including request for referral information and obtaining reversal) that can be identified before sterilization *(1–19)*.
Parity[a]		
a) Nulliparous	A	
b) Parous	A	
Breastfeeding (BF)	A	
Postpartum[a]		
a) Time postpartum: < 7 days	A	
7 to < 42 days	D	
≥ 42 days	A	

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b) Pre-eclampsia/ eclampsia:		
mild pre-eclampsia	A	
severe pre-eclampsia/ eclampsia	D	
c) Prolonged rupture of membranes, 24 hours or more	D	
d) Puerperal sepsis, intrapartum or puerperal fever	D	
e) Severe antepartum or postpartum haemorrhage	D	
f) Severe trauma to the genital tract (cervical or vaginal tear at time of delivery)	D	
g) Uterine rupture or perforation	S	**Clarification:** If exploratory surgery or laparoscopy is conducted and the patient is stable, repair of the uterus and tubal sterilization may be performed concurrently if no additional risk is involved.

Female surgical sterilization

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Post-abortion[a]		
a) Uncomplicated	A	
b) Post-abortal sepsis or fever	D	
c) Severe post-abortal haemorrhage	D	
d) Severe trauma to the genital tract (cervical or vaginal tear at time of abortion)	D	
e) Uterine perforation	S	**Clarification:** If exploratory surgery or laparoscopy is conducted and the patient is stable, repair of the uterus and tubal sterilization may be performed concurrently if no additional risk is involved.
f) Acute haematometra	D	
Past ectopic pregnancy	A	
Smoking		
a) Age < 35 years	A	
b) Age ≥ 35 years:		
< 15 cigarettes/day	A	
≥ 15 cigarettes/day	A	

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Obesity		**Clarification:** The procedure may be more difficult. There is an increased risk of wound infection and disruption. Obese women may have limited respiratory function and may be more likely to require general anaesthesia. **Evidence:** Obese women were more likely to have complications when undergoing sterilization *(20–23)*.
a) ≥ 30 kg/m² BMI	C	
b) Menarche to < 18 years and ≥ 30 kg/m² BMI	C	
Cardiovascular disease (CVD)		
Multiple risk factors for arterial CVD[a] (e.g. older age, smoking, diabetes, hypertension and known dyslipidaemias)	S	
Hypertension		
For all categories of hypertension, classifications are based on the assumption that no other risk factors for CVD exist. When multiple risk factors do exist, the risk of CVD may increase substantially. A single reading of blood pressure level is not sufficient to classify a woman as hypertensive.		
a) Hypertension: adequately controlled	C	
b) Elevated blood pressure levels (properly taken measurements):		**Clarification:** Elevated blood pressure should be controlled before surgery. There are increased anaesthesia-related risks and an increased risk of cardiac arrhythmia with uncontrolled hypertension. Careful monitoring of blood pressure intra-operatively is particularly necessary in this situation.
systolic 140–159 or diastolic 90–99 mm Hg	C	
systolic ≥ 160 or diastolic ≥ 100 mm Hg	S	
c) Vascular disease	S	

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History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	A	
Deep vein thrombosis (DVT)/ pulmonary embolism (PE)		**Clarification:** To reduce the risk of DVT/PE, early ambulation is recommended.
a) History of DVT/PE	A	
b) Acute DVT/PE	D	
c) DVT/PE and established on anticoagulant therapy	S	
d) Family history (first-degree relatives)	A	
e) Major surgery:		
with prolonged immobilization	D	
without prolonged immobilization	A	
f) Minor surgery without immobilization	A	
Known thrombogenic mutations (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and antithrombin deficiencies)	A	**Clarification:** Routine screening is not appropriate because of the rarity of the conditions and the high cost of screening.

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Superficial venous disorders		
a) Varicose veins	A	
b) Superficial venous thrombosis (SVT)	A	
Current and history of ischaemic heart disease[a]		
a) Current ischaemic heart disease	D	
b) History of ischaemic heart disease	C	
Stroke (history of cerebrovascular accident)	C	
Known dyslipidaemias without other known cardiovascular risk factors	A	**Clarification:** Routine screening is not appropriate because of the rarity of the condition and the high cost of screening.
Valvular heart disease		
a) Uncomplicated	C	**Clarification:** The woman requires prophylactic antibiotics.
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis)	S	**Clarification:** The woman is at high risk for complications associated with anaesthesia and surgery. If the woman has atrial fibrillation that has not been successfully managed or current subacute bacterial endocarditis, the procedure should be delayed.

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Rheumatic diseases		
Systemic lupus erythematosus (SLE)		
People with SLE are at increased risk of ischaemic heart disease, stroke and venous thromboembolism (VTE). Categories assigned to such conditions in the MEC should be the same for women with SLE who present with these conditions. For all categories of SLE, classifications are based on the assumption that no other risk factors for CVD are present; these classifications must be modified in the presence of such risk factors. Available evidence indicates that many women with SLE can be considered good candidates for most contraceptive methods, including hormonal contraceptives *(24–42)*.		
a) Positive (or unknown) antiphospholipid antibodies	S	
b) Severe thrombocytopenia	S	
c) Immunosuppressive treatment	S	
d) None of the above	C	
Neurological conditions		
Headaches		
a) Non-migrainous (mild or severe)	A	

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b) Migraine:		
without aura		
age < 35 years	A	
age ≥ 35 years	A	
with aura, at any age	A	
Epilepsy	C	
Depressive disorders		
Depressive disorders	C	
Reproductive tract infections and disorders		
Vaginal bleeding patterns		
a) Irregular pattern without heavy bleeding	A	
b) Heavy or prolonged bleeding (includes regular and irregular patterns)	A	
Unexplained vaginal bleeding (suspicious for serious condition)		**Clarification:** The condition must be evaluated before the procedure is performed.
a) Before evaluation	D	
Endometriosis	S	

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Benign ovarian tumours (including cysts)	A	
Severe dysmenorrhoea	A	
Gestational trophoblastic disease		
a) Decreasing or undetectable β-hCG levels	A	
b) Persistently elevated β-hCG levels or malignant disease	D	
Cervical ectropion	A	
Cervical intraepithelial neoplasia (CIN)	A	
Cervical cancer[a] (awaiting treatment)	D	
Breast disease		
a) Undiagnosed mass	A	
b) Benign breast disease	A	
c) Family history of cancer	A	
d) Breast cancer:		
current	C	
past and no evidence of current disease for 5 years	A	

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Endometrial cancer[a]	D	
Ovarian cancer[a]	D	
Uterine fibroids[a]		
a) Without distortion of the uterine cavity	C	
b) With distortion of the uterine cavity	C	
Pelvic inflammatory disease (PID)[a]		**Clarification:** A careful pelvic examination must be performed to rule out recurrent or persistent infection and to determine the mobility of the uterus.
a) Past PID (assuming no current risk factors for STIs):		
with subsequent pregnancy	A	
without subsequent pregnancy	C	
b) Current PID	D	
STIs[a]		**Clarification:** If no symptoms persist following treatment, sterilization may be performed.
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	D	
b) Other STIs (excluding HIV and hepatitis)	A	

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c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	A	
d) Increased risk of STIs	A	
HIV/AIDS		
High risk of HIV	A	**Clarification:** No routine screening is needed. Appropriate infection-prevention procedures, including universal precautions, must be carefully observed with all surgical procedures. The use of condoms is recommended following sterilization.
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	A	**Clarification:** No routine screening is needed. Appropriate infection-prevention procedures, including universal precautions, must be carefully observed with all surgical procedures. The use of condoms is recommended following sterilization.
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	S	**Clarification:** The presence of an AIDS-related illness may require that the procedure be delayed.
Other infections		
Schistosomiasis		
a) Uncomplicated	A	
b) Fibrosis of the liver (if severe, see cirrhosis)	C	**Clarification:** Liver function may need to be evaluated.
Tuberculosis		
a) Non-pelvic	A	
b) Pelvic	S	

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Malaria	A	
Endocrine conditions		
Diabetes[a]		**Clarification:** If blood glucose is not well controlled, referral to a higher-level facility is recommended.
a) History of gestational disease	A	
b) Non-vascular disease:		**Clarification:** There is a possible decrease in healing and an increased risk of wound infection. Use of prophylactic antibiotics is recommended. **Evidence:** Diabetic women were more likely to have complications when undergoing sterilization *(20)*.
non-insulin-dependent	C	
insulin-dependent	C	
c) Nephropathy/ retinopathy/neuropathy	S	
d) Other vascular disease or diabetes of > 20 years' duration	S	
Thyroid disorders[a]		
a) Simple goitre	A	
b) Hyperthyroid	S	
c) Hypothyroid	C	

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A = accept: There is no medical reason to deny sterilization to a person with this condition. C = caution: The procedure is normally conducted in a routine setting, but with extra preparation and precautions. D = delay: The procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided. S = special: The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia, and other back-up medical support. For these conditions, the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary methods of contraception should be provided if referral is required or there is otherwise any delay.		
Gastrointestinal conditions		
Gall bladder disease		
a) Symptomatic:		
treated by cholecystectomy	A	
medically treated	A	
current	D	
b) Asymptomatic	A	
History of cholestasis		
a) Pregnancy related	A	
b) Past-COC related	A	
Viral hepatitis[a]		**Clarification:** Appropriate infection-prevention procedures, including universal precautions, must be carefully observed with all surgical procedures.
a) Acute or flare	D	
b) Carrier	A	
c) Chronic	A	
Cirrhosis		**Clarification:** Liver function and clotting might be altered. Liver function should be evaluated.
a) Mild (compensated)	A	
b) Severe (decompensated)	S	

Female surgical sterilization

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Liver tumours		**Clarification:** Liver function and clotting might be altered. Liver function should be evaluated.
a) Benign:		
focal nodular hyperplasia	A	
hepatocellular adenoma	C	
b) Malignant (hepatoma)	C	
Anaemias		
Thalassaemia	C	
Sickle cell disease[a]	C	
Iron-deficiency anaemia		**Clarification:** The underlying disease should be identified. Both preoperative haemoglobin (Hb) level and operative blood loss are important factors in women with anaemia. If peripheral perfusion is inadequate, this may decrease wound healing.
a) Hb < 7 g/dl	D	
b) Hb ≥ 7 to < 10 g/dl	C	
Other conditions relevant only for female surgical sterilization		
Local infection	D	**Clarification:** There is an increased risk of postoperative infection.
Coagulation disorders[a]	S	
Respiratory diseases		
a) Acute (bronchitis, pneumonia)	D	**Clarification:** The procedure should be delayed until the condition is corrected. There are increases in anaesthesia-related and other perioperative risks.

Female surgical sterilization

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b) Chronic:		
asthma	S	
bronchitis	S	
emphysema	S	
lung infection	S	
Systemic infection or gastroenteritis[a]	D	
Fixed uterus due to previous surgery or infection[a]	S	
Abdominal wall or umbilical hernia	S	**Clarification:** Hernia repair and tubal sterilization should be performed concurrently if possible.
Diaphragmatic hernia[a]	C	
Kidney disease[a]	C	
Severe nutritional deficiencies[a]	C	
Previous abdominal or pelvic surgery	C	**Evidence:** Women with previous abdominal or pelvic surgery were more likely to have complications when undergoing sterilization *(20, 22, 43–45)*.

Female surgical sterilization

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Sterilization concurrent with abdominal surgery		
a) Elective	C	
b) Emergency (without previous counselling)	D	
c) Infectious condition	D	
Sterilization concurrent with caesarean section[a]	A	

ß-hCG: beta-human chorionic gonadotropin; BF: breastfeeding; BMI: body mass index; CIN: cervical intraepithelial neoplasia; COC: combined oral contraceptive; CVD: cardiovascular disease; DVT: deep vein thrombosis; Hb: haemoglobin; MEC: *Medical eligibility criteria for contraceptive use* (this publication); PE: pulmonary embolism; PID: pelvic inflammatory disease; SLE: systemic lupus erythematosus; SVT: superficial venous thrombosis.

5.11.2 Recommendations for male surgical sterilization

Male surgical sterilization

Sterilization does not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

Condition [a] additional comments after this table	MEC Category A = accept, C = caution, D = delay, S = special	Clarifications/evidence
A = accept: There is no medical reason to deny sterilization to a person with this condition. C = caution: The procedure is normally conducted in a routine setting, but with extra preparation and precautions. D = delay: The procedure is delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided. S = special: The procedure should be undertaken in a setting with an experienced surgeon and staff, equipment needed to provide general anaesthesia, and other back-up medical support. For these conditions, the capacity to decide on the most appropriate procedure and anaesthesia regimen is also needed. Alternative temporary methods of contraception should be provided if referral is required or there is otherwise any delay.		
Personal characteristics and reproductive history		
Young age	C	**Clarification:** Young men, like all men, should be counselled about the permanency of sterilization and the availability of alternative, long-term, highly effective methods. **Evidence:** Men who underwent vasectomy at young ages were more likely to have the procedure reversed than those who underwent vasectomy at older ages *(2)*.
Depressive disorders		
Depressive disorders	C	
HIV/AIDS		
High risk of HIV	A	**Clarification:** No routine screening is needed. Appropriate infection-prevention procedures, including universal precautions, must be carefully observed with all surgical procedures. The use of condoms is recommended following sterilization.
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	A	**Clarification:** No routine screening is needed. Appropriate infection-prevention procedures, including universal precautions, must be carefully observed with all surgical procedures. The use of condoms is recommended following sterilization.
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	S	**Clarification:** The presence of severe or advanced HIV clinical disease may require that the procedure be delayed.
Endocrine conditions		
Diabetes[a]	C	**Clarification:** If blood glucose is not well controlled, referral to a higher-level facility is recommended.
Anaemias		
Sickle cell disease[a]	A	

Male surgical sterilization

Sterilization does not protect against sexually transmitted infections (STIs), including HIV. If there is a risk of STI/HIV, the correct and consistent use of condoms is recommended. When used correctly and consistently, male and female condoms offer one of the most effective methods of protection against STIs, including HIV.

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Other conditions relevant only for male surgical sterilization		
Local infection[a]		
a) Scrotal skin infection	D	
b) Active STI	D	
c) Balanitis	D	
d) Epididymitis or orchitis	D	
Coagulation disorders[a]	S	
Previous scrotal injury	C	
Systemic infection or gastroenteritis[a]	D	
Large varicocele[a]	C	
Large hydrocele[a]	C	
Filariasis (elephantiasis)[a]	D	
Intrascrotal mass[a]	D	
Cryptorchidism	S	
Inguinal hernia[a]	S	

MEC: *Medical eligibility criteria for contraceptive use* (this publication).

5.11.3 Additional comments for female sterilization

Parity

Nulliparous women: Like all women, they should be counselled about the permanency of sterilization and the availability of alternative, long-term, highly effective methods.

Postpartum

Before 7 days postpartum: Sterilization can be safely performed immediately postpartum.

Seven days postpartum to before 42 days postpartum: There is an increased risk of complications when the uterus has not fully involuted.

- Pre-eclampsia/eclampsia: There are increased anaesthesia-related risks.
- Prolonged rupture of membranes, 24 hours or more: There is an increased risk of postoperative infection.
- Puerperal sepsis, intrapartum or puerperal fever: There is an increased risk of postoperative infection.
- Severe antepartum or postpartum haemorrhage: The woman may be anaemic and unable to tolerate further blood loss.
- Severe trauma to the genital tract (cervical or vaginal tear at the time of delivery): There may have been significant blood loss and anaemia.
- Uterine rupture or perforation: There may have been significant blood loss or damage to abdominal contents.

Post-abortion

- Post-abortal sepsis or fever: There is an increased risk of postoperative infection.
- Severe post-abortal haemorrhage: The woman may be anaemic and unable to tolerate further blood loss.
- Severe trauma to the genital tract (cervical or vaginal tear at the time of abortion): The woman may be anaemic and unable to tolerate further blood loss. The procedure may be more painful.
- Uterine perforation: There may have been significant blood loss or damage to abdominal contents.
- Acute haematometra: The woman may be anaemic and unable to tolerate further blood loss.

Multiple risk factors for arterial cardiovascular disease (CVD)

Concurrent presence of multiple risk factors: There may be a high risk of complications associated with anaesthesia and surgery.

Current and history of ischaemic heart disease

There is a high risk of complications associated with anaesthesia and surgery.

Cervical cancer (awaiting treatment), endometrial cancer, ovarian cancer

In general, the treatment renders a woman sterile.

Uterine fibroids

Depending on the size and location of the fibroids, it might be difficult to localize the tubes and mobilize the uterus.

Pelvic inflammatory disease (PID)

PID can lead to an increased risk of post-sterilization infection or adhesions.

STIs

There is an increased risk of postoperative infection.

Diabetes

There is a risk of hypoglycaemia or ketoacidosis when the procedure is performed, particularly if blood sugar is not well controlled before the procedure.

Thyroid disorders

There is a higher risk of complications associated with anaesthesia and surgery.

Viral hepatitis

There is a high risk for complications associated with anaesthesia and surgery.

Sickle cell disease

There is an increased risk of pulmonary, cardiac or neurological complications and possible increased risk of wound infection.

Coagulation disorders

There is a higher risk of haematological complications of surgery.

Systemic infection or gastroenteritis

There are increased risks of postoperative infection, complications from dehydration, and anaesthesia-related complications.

Fixed uterus due to previous surgery or infection

Decreased mobility of the uterus, fallopian tubes and bowel may make laparoscopy and mini-laparotomy difficult and increase the risk of complications.

Diaphragmatic hernia

For laparoscopy, a woman may experience acute cardiorespiratory complications induced by pneumoperitoneum or the Trendelenburg position.

Kidney disease

Blood clotting may be impaired. There may be an increased risk of infection and hypovolemic shock. The condition may cause baseline anaemia, electrolyte disturbances, and abnormalities in drug metabolism and excretion.

Severe nutritional deficiencies

There may be an increased risk of wound infection and impaired healing.

Sterilization concurrent with caesarean section

There is no increased risk of complications in a surgically stable client.

5.11.4 Additional comments for male sterilization

Diabetes

Individuals with diabetes are more likely to get postoperative wound infections. If signs of infection appear, treatment with antibiotics needs to be given.

Local infection

There is an increased risk of postoperative infection.

Coagulation disorders

Bleeding disorders lead to an increased risk of postoperative haematoma formation, which, in turn, leads to an increased risk of infection.

Systemic infection or gastroenteritis

There is an increased risk of postoperative infection.

Large varicocele

The vas may be difficult or impossible to locate; a single procedure to repair varicocele and perform a vasectomy decreases the risk of complications.

Large hydrocele

The vas may be difficult or impossible to locate; a single procedure to repair hydrocele and perform a vasectomy decreases the risk of complications.

Filariasis; elephantiasis

If elephantiasis involves the scrotum, it may be impossible to palpate the spermatic cord and testis.

Intrascrotal mass

This may indicate underlying disease.

Inguinal hernia

Vasectomy can be performed concurrent with hernia repair.

Sickle cell disease

There is an increased risk of pulmonary, cardiac or neurological complications and possible increased risk of wound infection.

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5.12 Summary table (SUMM)

This summary table highlights the medical eligibility recommendations for combined hormonal contraceptives (COCs, CICs, the patch [P] and combined vaginal ring [CVR]), progestogen-only contraceptives (POPs, DMPA/NET-EN injectables and LNG/ETG implants) and intrauterine devices (Cu-IUD and LNG-IUD). For further information about these recommendations, please consult the relevant table for each contraceptive method in section 5 of this guideline. Eligibility recommendations for other contraceptive methods, including those that are less widely used globally and those that use a different form of MEC classification, are presented in their respective subsections in section 5: emergency contraceptive pills (ECPs), copper-bearing IUD for emergency contraception (E-IUD), progesterone-releasing vaginal rings (PVR), barrier methods (BARR), fertility-awareness-based (FAB) methods, lactational amenorrhoea method (LAM), coitus interruptus (CI) and surgical sterilization (STER).

Summary table

Condition	Combined hormonal contraceptives		Progestogen-only contraceptives			Intrauterine devices (IUDs)	
	COC/P/ CVR	CIC	POP	DMPA/ NET-EN inject-ables	LNG/ ETG implant	Cu-IUD	LNG-IUD
	MEC Category						
	I = initiation, C = continuation[b]						
Pregnancy[a]	NA	NA	NA		NA	4	4
Age	Menarche to < 40 = 1 ≥ 40 = 2	Menarche to < 40 = 1 ≥ 40 = 2	Menarche to < 18 = 1 18–45 = 1 > 45 = 1	Menarche to < 18 = 2 18–45 = 1 > 45 = 2	Menarche to < 18 = 1 18–45 = 1 > 45 = 1	Menarche to < 20 = 2 ≥ 20 = 1	Menarche to < 20 = 2 ≥ 20 = 1
Parity							
a) Nulliparous	1	1	1	1	1	2	2
b) Parous	1	1	1	1	1	1	1
Breastfeeding (BF)							
a) < 6 weeks postpartum	4	4	2	2	2		
b) 6 weeks to < 6 months (primarily BF)	3	3	1	1	1		
c) ≥ 6 months postpartum	2	2	1	1	1		

BF: breastfeeding; NA: not applicable.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table

Condition	Combined hormonal contraceptives		Progestogen-only contraceptives			Intrauterine devices (IUDs)	
	COC/P/ CVR	CIC	POP	DMPA/ NET-EN inject-ables	LNG/ ETG implant	Cu-IUD	LNG-IUD
	MEC Category						
	I = initiation, C = continuation[b]						
Postpartum (non-BF women)							
a) < 21 days:			1	1	1		
without other risk factors for venous thrombo-embolism (VTE)	3[a]	3[a]					
with other risk factors for VTE	4[a]	4[a]					
b) ≥ 21 days to 42 days:			1	1	1		
without other risk factors for VTE	2[a]	2[a]					
with other risk factors for VTE	3[a]	3[a]					
c) > 42 days	1	1	1	1	1		
Postpartum (BF or non-BF women, including after caesarean section)						I	I
a) < 48 hours including insertion immediately after delivery of the placenta						1	not BF = 1; BF = 2
b) ≥ 48 hours to < 4 weeks						3	3
c) ≥ 4 weeks						1	1
d) Puerperal sepsis						4	4

BF: breastfeeding; BMI: body mass index; VTE: venous thromboembolism.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table							
Condition	**Combined hormonal contraceptives**		**Progestogen-only contraceptives**			**Intrauterine devices (IUDs)**	
	COC/P/ CVR	**CIC**	**POP**	**DMPA/ NET-EN inject-ables**	**LNG/ ETG implant**	**Cu-IUD**	**LNG-IUD**
	MEC Category						
	I = initiation, C = continuation[b]						
Post-abortion							
a) First trimester[a]	1	1	1	1	1	1	1
b) Second trimester	1	1	1	1	1	2	2
c) Immediate post-septic abortion	1	1	1	1	1	4	4
Past ectopic pregnancy	1	1	2	1	1	1	1
History of pelvic surgery (see postpartum, including caesarean section)	1	1	1	1	1	1	1
Smoking							
a) Age < 35 years	2	2	1	1	1	1	1
b) Age ≥ 35 years:							
< 15 cigarettes/day	3	2	1	1	1	1	1
≥ 15 cigarettes/day	4	3	1	1	1	1	1
Obesity							
a) ≥ 30 kg/m^2 BMI	2	2	1	1	1	1	1
b) Menarche to < 18 years and ≥ 30 kg/m^2 BMI	2	2	1	2[a]	1	1	1
Blood pressure measurement unavailable[a]	NA	NA	NA	NA	NA	NA	NA

BMI: body mass index; NA: not applicable.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)							
Condition	**COC/ P/CVR**	**CIC**	**POP**	**DMPA/ NET-EN inject-ables**	**LNG/ ETG implants**	**Cu-IUD**	**LNG-IUD**
	I = initiation, C = continuation[b]						
Cardiovascular disease (CVD)							
Multiple risk factors for arterial CVD (e.g. older age, smoking, diabetes, hypertension and known dyslipidemias)	3/4[a]	3/4[a]	2[a]	3[a]	2[a]	1	2
Hypertension							
a) History of hypertension where blood pressure CANNOT be evaluated (including hypertension during pregnancy)	3[a]	3[a]	2[a]	2[a]	2[a]	1	2
b) Adequately controlled hypertension, where blood pressure CAN be evaluated	3[a]	3[a]	1[a]	2[a]	1[a]	1	1
c) Elevated blood pressure levels (properly taken measurements):							
systolic 140–159 or diastolic 90–99 mm Hg	3	3	1	2	1	1	1
systolic ≥ 160 or diastolic ≥ 100 mm Hg	4	4	2	3	2	1	2
d) Vascular disease	4	4	2	3	2	1	2

CVD: cardiovascular disease.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)							
Condition	**COC/ P/CVR**	**CIC**	**POP**	**DMPA/ NET-EN inject-ables**	**LNG/ ETG implants**	**Cu-IUD**	**LNG-IUD**
	I = initiation, C = continuation[b]						
History of high blood pressure during pregnancy (where current blood pressure is measurable and normal)	2	2	1	1	1	1	1
Deep vein thrombosis (DVT)/pulmonary embolism (PE)							
a) History of DVT/PE	4	4	2	2	2	1	2
b) Acute DVT/PE	4	4	3	3	3	1	3
c) DVT/PE and established on anti-coagulant therapy	4	4	2	2	2	1	2
d) Family history (first-degree relatives)	2	2	1	1	1	1	1
e) Major surgery:							
with prolonged immobilization	4	4	2	2	2	1	2
without prolonged immobilization	2	2	1	1	1	1	1
f) Minor surgery without immobilization	1	1	1	1	1	1	1

DVT: deep vein thrombosis; PE: pulmonary embolism.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)							
Condition	**COC/ P/CVR**	**CIC**	**POP**	**DMPA/ NET-EN inject-ables**	**LNG/ ETG implants**	**Cu-IUD**	**LNG-IUD**
	I = initiation, C = continuation[b]						
Known thrombogenic mutations[a] (e.g. factor V Leiden; prothrombin mutation; protein S, protein C and antithrombin deficiencies)	4	4	2	2	2	1	2
Superficial venous disorders							
a) Varicose veins	1	1	1	1	1	1	1
b) Superficial venous thrombosis (SVT)	2[a]	2[a]	1	1	1	1	1
Current and history of ischaemic heart disease			I C		I C		I C
	4	4	2 3	3	2 3	1	2 3
Stroke (history of cerebrovascular accident)			I C		I C		
	4	4	2 3	3	2 3	1	2
Known dyslipidaemias without other cardiovascular risk factors[a]	2	2	2	2	2	1	2
Valvular heart disease							
a) Uncomplicated	2	2	1	1	1	1	1
b) Complicated (pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis)	4	4	1	1	1	2[a]	2[a]

SVT: superficial venous thrombosis.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	**COC/ P/CVR**	**CIC**	**POP**	**DMPA/ NET-EN inject-ables**		**LNG/ ETG implants**	**Cu-IUD**		**LNG-IUD**
	I = initiation, C = continuation[b]								
Rheumatic diseases									
Systemic lupus erythematosus (SLE)				I	C		I	C	
a) Positive (or unknown) anti-phospholipid antibodies	4	4	3	3	3	3	1	1	3
b) Severe thrombo-cytopenia	2	2	2	3	2	2	3[a]	2[a]	2[a]
c) Immuno-suppressive treatment	2	2	2	2	2	2	2	1	2
d) None of the above	2	2	2	2	2	2	1	1	2

SLE: systemic lupus erythematosus

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)

Condition	COC/P/CVR		CIC		POP		DMPA/NET-EN injectables		LNG/ETG implants		Cu-IUD		LNG-IUD	
	I = initiation, C = continuation[b]													
Neurological conditions														
Headaches	I	C	I	C	I	C	I	C	I	C			I	C
a) Non-migrainous (mild or severe)[a]	1	2	1	2	1	1	1	1	1	1	1		1	1
b) Migraine														
without aura														
age < 35 years[a]	2	3	2	3	1	2	2	2	2	2	1		2	
age ≥ 35 years[a]	3	4	3	4	1	2	2	2	2	2	1		2	
with aura (at any age)[a]	4	4	4	4	2	3	2	3	2	3	1		2	
Epilepsy	1[a]		1[a]		1[a]		1[a]		1[a]		1		1	
	If on treatment, see "Drug interactions" (last section of this table)													
Depressive disorders														
Depressive disorders[a]	1		1		1		1		1		1		1	
Reproductive tract infections and disorders														
Vaginal bleeding patterns													I	C
a) Irregular pattern without heavy bleeding	1		1		2		2		2		1		1	1
b) Heavy or prolonged bleeding (includes regular and irregular patterns)[a]	1		1		2		2		2		2		1	2
Unexplained vaginal bleeding (suspicious for serious condition)											I	C	I	C
a) Before evaluation[a]	2		2		2		3		3		4	2	4	2
Endometriosis	1		1		1		1		1		2		1	

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	COC/P/CVR	CIC	POP	DMPA/NET-EN injectables	LNG/ETG implants	Cu-IUD		LNG-IUD	
	I = initiation, C = continuation[b]								
Benign ovarian tumours (including cysts)	1	1	1	1	1	1		1	
Severe dysmenorrhoea	1	1	1	1	1	2		1	
Gestational trophoblastic disease									
a) Decreasing or undetectable β-hCG levels	1	1	1	1	1	3		3	
b) Persistently elevated β-hCG levels or malignant disease	1	1	1	1	1	4		4	
Cervical ectropion	1	1	1	1	1	1		1	
Cervical intra-epithelial neoplasia (CIN)	2	2	1	2	2	1		2	
						I	C	I	C
Cervical cancer	2	2	1	2	2	4	2	4	2
Breast disease									
a) Undiagnosed mass	2[a]	2[a]	2[a]	2[a]	2[a]	1		2	
b) Benign breast disease	1	1	1	1	1	1		1	
c) Family history of cancer	1	1	1	1	1	1		1	
d) Breast cancer									
current	4	4	4	4	4	1		4	
past and no evidence of current disease for 5 years	3	3	3	3	3	1		3	

CIN: cervical intraepithelial neoplasia.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	COC/P/ CVR	CIC	POP	DMPA/ NET-EN injec-tables	LNG/ ETG implants	Cu-IUD		LNG-IUD	
	I = initiation, C = continuation[b]								
						I	C	I	C
Endometrial cancer	1	1	1	1	1	4	2	4	2
Ovarian cancer	1	1	1	1	1	3	2	3	2
Uterine fibroids									
a) Without distortion of the uterine cavity	1	1	1	1	1	1		1	
b) With distortion of the uterine cavity	1	1	1	1	1	4		4	
Anatomical abnormalities									
a) That distort the uterine cavity						4		4	
b) That do not distort the uterine cavity						2		2	
Pelvic inflammatory disease (PID)									
a) Past PID (assuming no current risk factors for STIs)						I	C	I	C
with subsequent pregnancy	1	1	1	1	1	1	1	1	1
without subsequent pregnancy	1	1	1	1	1	2	2	2	2
b) Current PID	1	1	1	1	1	4	2[a]	4	2[a]

PID: pelvic inflammatory disease.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implants**	**Cu-IUD**		**LNG-IUD**	
	I = initiation, C = continuation[b]								
Sexually transmitted infections (STIs)						I	C	I	C
a) Current purulent cervicitis or chlamydial infection or gonorrhoea	1	1	1	1	1	4	2[a]	4	2[a]
b) Other STIs (excluding HIV and hepatitis)	1	1	1	1	1	2	2	2	2
c) Vaginitis (including *Trichomonas vaginalis* and bacterial vaginosis)	1	1	1	1	1	2	2	2	2
d) Increased risk of STIs	1	1	1	1	1	2/3[a]	2	2/3[a]	2

STI: sexually transmitted infection.

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	COC/P/CVR	CIC	POP	DMPA/NET-EN injectables	LNG/ETG implants	Cu-IUD		LNG-IUD	
	I = initiation, C = continuation[b]								
HIV/AIDS									
						I	C	I	C
High risk of HIV	1	1	1	1	1	1[a]	1[a]	1[a]	1[a]
Asymptomatic or mild HIV clinical disease (WHO stage 1 or 2)	1[a]	1[a]	1[a]	1[a]	1[a]	2	2	2	2
Severe or advanced HIV clinical disease (WHO stage 3 or 4)	1[a]	1[a]	1[a]	1[a]	1[a]	3	2[a]	3	2[a]
Other infections									
Schistosomiasis									
a) Uncomplicated	1	1	1	1	1	1		1	
b) Fibrosis of the liver	1	1	1	1	1	1		1	
Tuberculosis						I	C	I	C
a) Non-pelvic	1[a]	1[a]	1[a]	1[a]	1[a]	1	1	1	1
b) Pelvic	1[a]	1[a]	1[a]	1[a]	1[a]	4	3	4	3
	If on treatment, see "Drug interactions" (last section of this table)								
Malaria	1	1	1	1	1	1		1	

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)							
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implants**	**Cu-IUD**	**LNG-IUD**
	I = initiation, C = continuation[b]						
Endocrine conditions							
Diabetes							
a) History of gestational disease	1	1	1	1	1	1	1
b) Non-vascular disease:							
non-insulin-dependent	2	2	2	2	2	1	2
insulin-dependent	2	2	2	2	2	1	2
c) Nephropathy/ retinopathy/ neuropathy	3/4[a]	3/4[a]	2	3	2	1	2
d) Other vascular disease or diabetes of > 20 years' duration	3/4[a]	3/4[a]	2	3	2	1	2
Thyroid disorders							
a) Simple goitre	1	1	1	1	1	1	1
b) Hyperthyroid	1	1	1	1	1	1	1
c) Hypothyroid	1	1	1	1	1	1	1
Gastrointestinal conditions							
Gall bladder disease							
a) Symptomatic							
treated by cholecystectomy	2	2	2	2	2	1	2
medically treated	3	2	2	2	2	1	2
current	3	2	2	2	2	1	2
b) Asymptomatic	2	2	2	2	2	1	2

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)								
Condition	COC/P/CVR	CIC		POP	DMPA/NET-EN injectables	LNG/ETG implants	Cu-IUD	LNG-IUD
	I = initiation, C = continuation[b]							
History of cholestasis								
a) Pregnancy-related	2	2		1	1	1	1	1
b) Past-COC-related	3	2		2	2	2	1	2
Viral hepatitis	I	C	I	C				
a) Acute or flare	3/4[a]	2	3	2	1	1	1	1	1
b) Carrier	1	1	1	1	1	1	1	1	1
c) Chronic	1	1	1	1	1	1	1	1	1
Cirrhosis								
a) Mild (compensated)	1	1		1	1	1	1	1
b) Severe (decompensated)	4	3		3	3	3	1	3
Liver tumours								
a) Benign								
focal nodular hyperplasia	2	2		2	2	2	1	2
hepatocellular adenoma	4	3		3	3	3	1	3
b) Malignant (hepatoma)	4	3/4		3	3	3	1	3

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implants**	**Cu-IUD**		**LNG-IUD**	
	I = initiation, C = continuation[b]								
Anaemias									
Thalassaemia	1	1	1	1	1	2		1	
Sickle cell disease	2	2	1	1	1	2		1	
Iron-deficiency anaemia	1	1	1	1	1	2		1	
Drug interactions									
Antiretroviral therapy (ART)						I	C	I	C
a) Nucleoside/ nucleotide reverse transcriptase inhibitors (NRTIs):									
abacavir (ABC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
zidovudine (AZT)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
lamivudine (3TC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
didanosine (DDI)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
emtricitabine (FTC)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
b) Non-nucleoside/ nucleotide reverse transcriptase inhibitors (NNRTIs):									
efavirenz (EFV)[a]	2	2	2	DMPA = 1, NET-EN = 2	2	2/3	2	2/3	2
etravirine (ETR)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
nevirapine (NVP)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
ripirivine (RPV)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]

ART: antiretroviral therapy; NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)									
Condition	COC/P/CVR	CIC	POP	DMPA/NET-EN injectables	LNG/ETG implants	Cu-IUD		LNG-IUD	
	I = initiation, C = continuation[b]								
c) Protease inhibitors:									
ritonavir-boosted atazanavir (ATV/r)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir-boosted lopinavir (LPV/r)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir-boosted darunavir (DRV/r)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
ritonavir (RTV)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
d) Integrase inhibitors:									
raltegravir (RAL)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
dolutegravir (DTG)	1	1	1	1	1	2/3[a]	2[a]	2/3[a]	2[a]
HIV pre-exposure prophylaxis (PrEP)									
a) NRTI: tenofovir-emtricitabine (TDF/FTC)	1	1	1	1	1	1		1	
b) NNRTI: dapivirine ring	1	1	1	1	1	1		1	
c) Integrase inhibitors: cabotegravir	1	1	1	1	1	1		1	

NNRTI: non-nucleoside/nucleotide reverse transcriptase inhibitor; NRTI: nucleoside/nucleotide reverse transcriptase inhibitor; PrEP: pre-exposure prophylaxis

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

Summary table (continued)							
Condition	**COC/P/ CVR**	**CIC**	**POP**	**DMPA/ NET-EN injec-tables**	**LNG/ ETG implants**	**Cu-IUD**	**LNG-IUD**
	I = initiation, C = continuation[b]						
Anticonvulsant therapy							
a) Certain anti-convulsants (phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine)	3[†]	2	3[a]	DMPA=1; NET-EN=2[a]	2[a]	1	1
b) Lamotrigine	3[a]	3	1	1	1	1	1
Antimicrobial therapy							
a) Broad-spectrum antibiotics	1	1	1	1	1	1	1
b) Antifungals	1	1	1	1	1	1	1
c) Antiparasitics	1	1	1	1	1	1	1
d) Rifampicin or rifabutin therapy	3	2[a]	3[a]	DMPA=1; NET-EN=2[a]	2[a]	1	1

[a] Please consult the relevant table for each contraceptive method in section 5 for a clarification to this classification.

[b] In the table columns for each type of contraceptive method, if I or C is not specified, then the MEC Category applies to both I and C.

6 Programmatic implications

The following issues need to be addressed when applying the recommendations on medical eligibility criteria for contraceptive use in this document to national programmes:

- informed choice of methods and informed consent;
- elements of quality of care;
- essential screening procedures for administering the contraceptive methods;
- provider training and skills; and
- referral and follow-up care for contraceptive use, as appropriate.

Service-delivery practices that are essential for the safe use of a particular contraceptive method should be distinguished from practices that may be appropriate for good health care but are not related to use of the method. The promotion of good health-care practices unrelated to safe contraception should not be considered a prerequisite and should not be an obstacle to the provision of a contraceptive method but should be complementary to it.

Adaptation of global guidelines to national programmes is not always an easy task and is best done by those well acquainted with prevailing local health conditions, behaviours and culture. These changes must be made within the context of ensuring informed choices and medical safety for users.

As a first step, the recommendations on medical eligibility criteria need to be considered within the context of each country, so as to be applicable to health workers who are delivering services at all levels of the national health system. It is expected that the existing national and institutional health-care and service-delivery environments will determine the most suitable means of screening for conditions according to their public health importance. Client history will often be the most appropriate approach. A family planning provider may want to consult an expert about a client's underlying condition. Countries will need to determine how far and by what means it may be possible to extend their services to the more peripheral levels of the health system. This may involve upgrading both staff and facilities where feasible and affordable, or it may require a modest addition of equipment and supplies, and redeployment of space. It will also be necessary to address misperceptions sometimes held by health workers and contraceptive users about the risks and side-effects of particular methods, and to look closely at the needs and perspectives of women and men during the process of facilitating an informed choice.

6.1 Introducing the guideline into national programmes

When introducing this guideline on the medical eligibility criteria for contraceptive use into a national programme for SRH care, it is important to consider that this material is not simply a document that must be distributed, but rather that it presents health-care practices that must be introduced to family planning service providers through a well planned process of adaptation and implementation.

Information and advice for countries on how to adapt and implement guidelines on SRH is available in the 2018 publication, *Implementation guide for the medical eligibility criteria and selected practice recommendations for contraceptive use guidelines (1)* and an accompanying online toolkit of resources *(2)*. The implementation guide is designed for use by policy-makers, programme managers, implementing organizations and other health-care professionals to assist in translating guidelines into practice through the principles of implementation science. The guide presents a structured process that will aid countries in their efforts to incorporate the recommendations in this document into their national family planning guidelines and protocols. The online toolkit offers practical resources that will help the implementation team to achieve the tasks within the 2018 implementation guide.

The process a country follows may vary depending upon whether the MEC guideline is being introduced for the first time or is being used to update existing service-delivery guidelines. Throughout these steps, WHO stresses the importance of the process being collaborative and participatory to foster ownership and buy-in among policy-makers, professional bodies and other national experts.

6.2 Additional considerations

6.2.1 Gender

Gender equality and access to family planning are integrally related: the right to determine whether and when to have children, how many and with whom is fundamental for every individual's empowerment and for their agency over their own bodies and lives. To implement gender-responsive care, practice standards need to take into consideration how people's social, cultural and economic circumstances, and particularly how any harmful gender norms and inequalities they may face, affect their ability to make their own decisions about contraception, their access to services, and their continued use or discontinuation of their chosen method. Approaches should be put in place that empower all individuals, regardless of their circumstances. Everyone seeking contraceptive services should be treated with dignity and respect and offered high-quality care irrespective of their gender. Further information on gender equality and gender inclusiveness related to the delivery of family planning or contraceptive services is available in *Family planning: a global handbook for providers (3)*.

6.2.2 People with disabilities

According to the United Nations Convention on the Rights of Persons with Disabilities (CRPD) adopted in 2006, people with disabilities must have access, on an equal basis with others, to all forms of SRH care (Article 25) as part of the general right to marry, found a family and retain their fertility (Article 23) *(4)*. Health workers often fail to offer SRH services to people with disabilities, because of the common misconception that they are not sexually active *(5)*. Provision of contraceptive services to people with disabilities, however, requires health workers to consider the client's preferences, the nature of the disability and the specifics of different conceptive methods.

For example, some barrier methods may be difficult for those with limited manual dexterity to use; combined oral contraceptives (COCs) may not be an appropriate method for women with impaired circulation or immobile extremities, even in the absence of known thrombogenic mutations, because of the increased risk of DVT; and other methods will be preferable for individuals with intellectual or mental health disabilities who have difficulty remembering to take medication each day. For women whose disability causes them difficulty with menstrual hygiene, the impact of the contraceptive method on menstrual cycles should also be considered.

In all instances, medical decisions must be based upon informed choice, which must itself be based on adequate SRH education. When the nature of the disability makes it more challenging to discern the will and preferences of the individual, contraceptives should only be provided in a manner consistent with Article 12 of the CRPD. Specifically, in such cases a process of supported decision-making should be instituted in which individuals who are trusted by the person with the disability (or disabilities), for example a personal ombudsman and other support persons, jointly participate with the individual in reaching a decision that is, to the greatest extent possible, consistent with the will and preference of that individual. Given the history of involuntary sterilization of persons with disabilities *(5)*, it is especially important to ensure that decisions about sterilization are only made with the full, uncoerced and informed consent of the individual, either alone or with support.

6.2.3 Adolescents

Adolescents in many countries lack adequate access to the contraceptive information and services that are necessary to protect their SRH and uphold their rights. There is an urgent need to implement programmes that both meet the contraceptive needs of adolescents and remove barriers to services. In general, adolescents are eligible to use the same methods of contraception as adults and must have access to a variety of contraceptive choices. Age alone does not constitute a medical reason for denying any method to adolescents. While some concerns have been expressed about the use of certain contraceptive methods by adolescents (e.g. the use of progestogen-only injectable [POI] contraceptives by those under 18), these concerns must be balanced against the advantages of preventing unintended pregnancy. It is clear that many of the same eligibility criteria that apply to older clients also apply to young people. However, some conditions (e.g. cardiovascular

disorders) that may limit the use of some methods in older women are rare in young people.

Political and cultural factors may affect adolescents' ability to access contraceptive information and services. For example, unmarried adolescents in particular may be prevented from obtaining contraceptive services because of restrictive laws and policies. Even when adolescents are able to obtain contraceptive services, they may not attempt to do so because of fear that their confidentiality will not be respected, or that health workers may be judgemental. All adolescents, regardless of marital status, have a right to privacy and confidentiality in health matters, including reproductive health care. Appropriate SRH services, including contraception, should be available and accessible to all adolescents by law or policy or in practice without necessarily requiring authorization by parents or guardians.

Social and behavioural issues should also be taken into account when adolescents select a contraceptive method. For example, in some settings, adolescents are also at increased risk for STIs, including HIV. While adolescents may choose to use any of the available contraceptive methods, in some cases, using methods that do not require a daily regimen may be more convenient. Adolescents, married or unmarried, have also been shown to be less tolerant of side-effects and therefore have high discontinuation rates. Method choice may also be influenced by factors such as sporadic patterns of intercourse and the need to conceal sexual activity and/or contraceptive use. For instance, sexually active adolescents who are unmarried have very different needs from those who are married and want to postpone, space or limit pregnancy. Expanding the number of methods available to choose from can lead to improved satisfaction, increased acceptance, and increased prevalence of contraceptive use. Proper education and counselling – both before and at the time of method selection – can help adolescents decide how to meet their particular needs and make informed and voluntary decisions. Every effort should be made to prevent the costs of services and/or methods from limiting the options available to adolescents.

6.2.4 Postpartum family planning

The postpartum period offers multiple opportunities for health workers to assist their clients with family planning decision-making. Moreover, the immediate postpartum period (within 48 hours of delivery) is an ideal time to address family planning needs, given that patients are frequently already interacting with the health system, and many contraceptive methods are appropriate immediately after childbirth, including progestogen-only methods and permanent surgical contraception.

Recommendations on which hormonal and non-hormonal contraceptive methods are safe to initiate are influenced by several factors that are changeable during the postpartum period, such as breastfeeding status, uterine involution, venous thromboembolism (VTE) risk and – in the case of intrauterine devices (IUDs) – expulsion risk. Extending family planning services through the first year after delivery is appropriate in view of the changing needs and preferences of women during this period.

To guide contraceptive decision-making to determine which hormonal and non-hormonal method(s) are safe for a woman after childbirth, refer to the rows for the conditions "breastfeeding" and "postpartum" in the contraceptive method table in section 5; and, when relevant for the individual client, refer to information about any underlying medical conditions.

References for section 6[13]

1. Implementation guide for the medical eligibility criteria and selected practice recommendations for contraceptive use guidelines: a guide for integration of the World Health Organization (WHO) Medical eligibility criteria for contraceptive use (MEC) and Selected practice recommendations for contraceptive use (SPR) into national family planning guidelines. Geneva: World Health Organization; 2018 (https://iris.who.int/handle/10665/272758). Licence: CC BY-NC-SA 3.0 IGO
2. Toolkit [to accompany the Implementation guide for the medical eligibility criteria and selected practice recommendations for contraceptive use guidelines]. Geneva: World Health Organization; 2018 (Links to the components of the toolkit are available at: https://www.who.int/publications/i/item/9789241513579).
3. Family planning: a global handbook for providers, 2022 edition. Geneva and Baltimore: World Health Organization Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs; 2022 (https://fphandbook.org/).
4. United Nations Convention on the Rights of Persons with Disabilities. Resolution adopted by the United Nations General Assembly. New York: United Nations; 2006 (A/RES/61/106; http://www.un-documents.net/a61r106.htm).
5. World Health Organization, World Bank. World report on disability 2011. Geneva: World Health Organization; 2011 (https://iris.who.int/handle/10665/44575).

[13] All references were accessed on 4 July 2025.

7 Dissemination of the guideline

The recommendations in this publication will be launched during the International Conference on Family Planning to be held in Bogotá, Colombia, in November 2025. Additional strategic launching events will be held during important conferences that define the global agenda for SRH – such as Women Deliver and the International AIDS Conference – as well as during international and regional conferences convened by the International Federation of Gynecology and Obstetrics (FIGO), the International Council of Nurses (ICN) and the International Confederation of Midwives (ICM). The document will be published in electronic PDF format on the WHO institutional repository for information sharing (WHO IRIS). To increase awareness about this updated guideline, the systematic reviews that informed the MEC update, and the key recommendations will be published in a special issue of *BMJ Sexual & Reproductive Health (1)*. WHO's digital contraceptive decision-support tools, such as the MEC mobile app *(2)*, the contraceptive delivery tool for humanitarian settings *(3)*, and the postpartum family planning compendium *(4)* will be updated. *Family planning: a global handbook for providers (5)*, the MEC wheel *(6)*, the *Digital adaptation kit for family planning* (FP DAK) *(7)* and the online Family planning training resource package (FPTRP) *(8)* will also be updated accordingly. Development of derivative communication products (e.g. 1- or 2-page briefs for frontline health workers, and infographics) highlighting key counselling issues will be prepared in collaboration with WHO's implementing partners, and in consultation with the GDG following the publication of this new edition of the MEC.

A comprehensive dissemination plan will be implemented, which will include widespread dissemination through the WHO regional and country offices, ministries of health of WHO Member States, the United Nations agency cosponsors of the Special Programme of Research, Development and Research Training in Human Reproduction (HRP) – i.e. the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), WHO and the World Bank – as well as WHO collaborating centres, national and international professional organizations, governmental and nongovernmental partner organizations working in the area of SRH, and civil society groups engaged in SRH projects. The WHO Secretariat Team will work closely with SRH advisors in the six WHO regional offices to conduct a series of regional events during 2025–2026. WHO will also collaborate with the Implementing Best Practices (IBP) network to organize webinars in English, French and Spanish to disseminate the sixth edition of the MEC.

Once translations of the document become available in other official languages of the United Nations, opportunities to ensure effective dissemination will be actively sought.

Reference for section 7[14]

1. WHO Medical eligibility criteria 6th edition and Selected practice recommendations 4th edition: Special issue on evidence that informed the update. BMJ Sex Reprod Health. 2025;51(Suppl1).
2. New App for WHO's Medical eligibility criteria for contraceptive use [news release]. World Health Organization; 29 August 2019 (https://www.who.int/news/item/29-08-2019-new-app-for-who-s-medical-eligibility-criteria-for-contraceptive-use).
3. Contraceptive delivery tool for humanitarian settings. Geneva: World Health Organization; 2018 (https://iris.who.int/handle/10665/276553). Licence: CC BY-NC-SA 3.0 IGO.
4. The Postpartum Family Planning Compendium [website]. World Health Organization (https://postpartumfp.srhr.org/).
5. Family planning: a global handbook for providers, 2022 edition. Geneva and Baltimore: World Health Organization Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs; 2022 (https://fphandbook.org).
6. WHO medical eligibility criteria wheel for contraceptive use, 2015 update. Geneva: World Health Organization; 2015 (https://iris.who.int/handle/10665/173585). Licence: CC BY-NC-SA 3.0 IGO.
7. Digital adaptation kit: family planning: operational requirements for implementing WHO recommendations in digital systems. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/341997). Licence: CC BY-NC-SA 3.0 IGO.
8. Training Resource Package for Family Planning [website]. United States Agency for International Development, World Health Organization, United Nations Population Fund; 2024 (https://www.fptraining.org/).

[14] All references were accessed on 25 July 2025.

8 Knowledge gaps and areas for further research

As part of its deliberations and considerations, the Guideline Development Group (GDG) identified an array of knowledge gaps related to the recommendations within the MEC guidelines, where further research could strengthen the existing body of evidence and contribute towards improvements in client-centred contraceptive services. While recognizing the list of topics is neither complete nor exhaustive, the GDG's list aims to stimulate researchers and institutions supporting research on contraception to pursue these topics within their research portfolios.

Contraception for breastfeeding women

- Research is needed on the impact of introducing progestogen-only contraception (POC) prior to lactogenesis. Specifically, it should look at the following outcomes: infant weight loss of more than 10% in the first seven days of use; onset of lactogenesis beyond 72 hours; and the need for supplementation in the first seven days.
- Research is needed on the impact of initiating DMPA earlier than six weeks postpartum on infant development.
- Research examining the risk of perforation associated with IUD insertion among breastfeeding women needs to be stratified by the postpartum timing of IUD insertion.
- Development and validation of core maternal and infant health outcomes are needed, and the optimal timing of measuring these outcomes needs to be determined, to evaluate contraceptive safety among women who breastfeed.
- Extending research on the safety and effectiveness of hormonal contraception and breastfeeding to women and infants with comorbidities, including preterm babies, is needed.

Emergency contraceptive pill (ECP) use more than once in a menstrual cycle

- Studies on repeated use of ECPs need to document more precisely the number of ECP doses and the interval period between doses when reporting the research.
- Research is needed to determine how frequently women use ECPs more than once in a menstrual cycle.
- More research is needed to understand why people use ECPs for contraception (i.e. use them more than once in a cycle) in order to better equip health workers to support ECP users and counsel them about more effective contraception.
- Studies on the safety and effectiveness of LNG and COC ECPs are needed among populations where hormonal contraception is contraindicated.
- Further research on the dosage of LNG ECP among women taking medicines that interact with LNG (CYP3A4 inducers), stratified by body weight, is needed.

Drug interactions between antiretroviral drugs (ARVs) and hormonal contraception

- Does the use of PrEP among women using DMPA or NET-EN injectable contraceptives affect bone mineral density or increase the risk of fractures?
- Does obesity affect drug interactions between ARVs and hormonal contraceptives among women living with HIV?
- Do drug interactions between ARVs and hormonal contraceptives differ among women living with HIV who have other chronic medical conditions compared with those without other chronic conditions?

Inflammatory bowel disease (IBD)

- How safe and effective is the use of hormonal contraception among women diagnosed with IBD (Crohn's Disease, ulcerative colitis)?
- What is the efficacy of ECPs for women diagnosed with IBD?

9 Monitoring and evaluating the impact of the recommendations

Based on a comprehensive evaluation plan, a survey targeting ministries of health, WHO offices and partners, professional organizations and civil society will be fielded to assess the extent and effectiveness of the dissemination of the guideline and recommendations, evaluate the level of implementation of the recommendations through national policies, and identify areas for further refinement and research gaps relating to medical eligibility criteria for contraceptive use.

10 Updating the recommendations

WHO will initiate a review of all the recommendations in this document in five years' time. In the interim, WHO will continue to monitor the body of evidence informing these recommendations and will convene additional consultations, as needed, should new evidence necessitate the reconsideration of existing recommendations. Such updates may be particularly warranted for issues where the evidence base may change rapidly. Any interim recommendations would be made available on WHO's web pages for sexual and reproductive health (SRH) and Human Reproduction Program (HRP): https://www.who.int/hrp. WHO encourages research aimed at addressing key unresolved issues related to the safe and effective use of contraceptives. WHO also invites comments and suggestions for improving this guideline (email to: srhcfc@who.int).

Annex 1

Declarations of interests from the Guideline Development Group members

Of the 19 experts who participated in this work, seven declared an interest related to contraception. The World Health Organization (WHO) Secretariat Team and the Guideline Steering Group (GSG) reviewed all declarations and found that two participants, Anna Glasier and Carolina Sales Vieira, had disclosed academic conflicts of interest that were sufficient to preclude them from participating in the deliberations or development of recommendations relevant to emergency contraceptive pills (ECPs) and levonorgestrel-releasing intrauterine devices (LNG-IUDs), respectively.

Sharon Cameron works at National Health Service (NHS) Lothian in the United Kingdom of Great Britain and Northern Ireland as a principal investigator (PI) for a multisite clinical trial on depot medroxyprogesterone acetate (DMPA) administered subcutaneously every six months. In 2023, NHS Lothian received £29 000 from FHI 360 towards this research. Cameron does not receive any direct income from this work. She heads the European Advisory Board on very early medical abortion, for which she receives the equivalent of a one-day consultant fee (€1500) each year. These declarations of interest were considered insignificant as this product and the areas declared were not part of the issues for discussion. Cameron was therefore confirmed as a Guideline Development Group (GDG) member and Co-Chair.

Alison Edelman works with the Oregon Health & Science University (OHSU), which is a research site for a trial on the extended use of contraceptive implants. This is an investigator-initiated sponsored trial funded by MERCK/Organon. The primary objective of the trial, for which she is the PI, is to study the effectiveness and bleeding patterns of individuals using the contraceptive implant (Nexplanon) past the three-year duration approved by the United States Food and Drug Administration, with follow-up to the end of Year 5. No direct emoluments are accrued by Edelman. This trial is current. In 2020, OHSU was a research site for progestogen-only pill studies (not currently available on market), and Edelman was the site PI for a sponsored trial examining the effects of missed or late progestogen-only pills and whether this might impact ovulation rates. The study ended in 2020. Edelman is a co-author of two articles in Up to date (a subscription-based website providing resources for medical professionals containing evidence-based reviews). She is the author of the reviews for two topics on the website (management of contraceptive-induced menstrual changes, and obesity and contraception). She received royalties which originally were only US$ 1 per year but as subscriptions have grown, they have amounted to approximately US$ 3000/ year. These declarations of interest were considered insignificant as the products and areas declared were not part of the issues for discussion. Edelman was therefore confirmed as a GDG member and Co-Chair.

Anna Glasier is as an expert consultant to Héra SAS Pharma (France) providing specialist clinical and medical advice to the Hana team at HRA Pharma to help inform and educate consumers for the last 13 years. She has been involved in work to get ulipristal emergency contraception (EC) licensed and then later approved as an over-the-counter EC by the European regulatory authority and other regulatory authorities. She also worked with HRA to get a desogestrel progestogen-only pill (POP) approved as a pharmacy medicine in the United Kingdom and a norgestrel POP approved for over-the-counter use in the United States of America (USA). She continues to help the company in their attempt to get a desogestrel POP approved for over-the-counter use in Spain, Italy and Germany. Remuneration for this work is undisclosed but she says it is significant. This work is current. This declaration of interest was deemed potentially significant because of the work on ECPs, which were under discussion in this update. Remuneration from this work is also substantial. In the light of this relationship with a company that manufactures ECPs, Glasier did not take part in the discussions on ECPs at the July 2024 meeting and absented herself from the meeting room when these issues were discussed.

Andy Gray is a member of the South African National Essential Medicines List Committee, which is responsible for the selection of medicines and the development of standard treatment guidelines in the public sector. Gray serves on three technical advisory committees at the South African Health Products Regulatory Authority: the Names and Scheduling Committee (of which he is Chair); the Pharmacovigilance Committee; and the Legal Committee. He is the Chair of the Proposal Review Committee for UNITAID, a funding mechanism primarily addressing HIV, tuberculosis and malaria, but also maternal and child health, in low- and middle-income countries. The declaration of interests were considered insignificant, and they involved work with Member State entities. Gray was therefore confirmed as a GDG member and Co-Chair.

Philip Hannaford has been the Chair of the Medicines for Women's Health Expert Advisory Group (under the auspices of the United Kingdom's Commission on Human Medicines) since 2020, where he provides expert opinion on regulatory matters relating to contraceptives. He receives £250. The declaration of interest was considered insignificant; he was therefore confirmed as a GDG member and Co-Chair.

Enriquito Lu was the Technical Unit Director for Family Planning/Reproductive Health at Jhpiego until February 2021, where his role was to support the organization's global portfolio of projects involving ministries of health, which he was helping to implement high-quality family planning and reproductive health services that were compliant with best practice. Since June 2021, he has been working with Jhpiego on a part-time basis as Senior Advisor with the Family Planning/ Reproductive Health unit supporting initiatives on comprehensive family planning in the Asia Pacific Economic Cooperation (APEC) forum. Lu was a member of the Organizing and Steering Committee and a session lead of the sixth International IUD Symposium convened by a consortium of organizations – Columbia University, Population Council, FHI 360 and NIH, for which he received an honorarium of US$ 1000. This work ended in July 2022. Until 2021, Lu was a member of the Organizing and Steering Group running a virtual course providing technical updates on reproductive heath services for the South Asia Regional Office of the IPPF Member Association for clinicians and programme managers, funded by IPPF SEARO. He received an honorarium of US$ 1000. This work ended in 2021. These declarations of interest were considered insignificant, and he was confirmed as a GDG member.

Carolina Sales Vieira served on the Global Advisory Board for Organon until September 2022. Currently she gives ad hoc lectures for Organon nationally and internationally, upon invitation. She also provides training on implant insertion for doctors from the public and private sectors because part of her institution's role is as a national reference centre for family planning and long-acting reversible contraception. Although the training is sponsored by Organon, they do not influence its content. Sales Vieira receives an honorarium of up to US$ 5000 per year. She has served on the Medical Advisory Board for Bayer and given ad hoc lectures and presentations in national and regional meetings. She also provides training on hormonal IUD insertion (six times per year), again due to her university's role as a national reference centre for this. The industry pays for the training for doctors who have been invited by the university; however, they play no role in devising the content of the training or in delivering it. Sales Vieira receives an honorarium of around US$ 6000 per year, while the university receives US$ 3000 per year. She served on the National Medical Advisory Board for Exeltis until 2021. Currently she gives presentations in national and regional meetings two or three times a year, sponsored by Exeltis, for which she receives about US$ 3000 per year. These declarations of interest were considered potentially significant, given the association with pharmaceutical firms involved in the manufacturing of LNG implants and the honorarium above the allowable threshold. To this end, Sales Vieira did not take part in discussions or decision-making on LNG implants during the GDG meeting.

The following GDG members had no conflicts of interest declared, and internet searches and public scrutiny did not reveal any undeclared conflicts of interest. They therefore participated in the GDG meetings fully, including discussions, decision-making and voting on recommendations: Rachid Bezad, Geeta Chhibber, Maria del Carmen Cravioto, Nasser El Kholy, Elimase Kamanga Gama, Anne-Beatrice Kihara, Seni Kouanda, Catia Marzolini, Mari Nagai, Herbert Peterson, Farida Shah and Dirgha Raj Shrestha.

Expertise of GDG members

Rachid Bezad: Obstetrics and gynaecology, reproductive health development including family planning, contraception, infertility, maternal health, sexually transmitted infections (STIs), research, medical pedagogy, programme management and implementation

Sharon Cameron: Complex family planning, research; evidence-based guideline development; implementing reproductive health services in low-resource settings; curriculum development, programme development; innovations; capacity building and training; scientific editing

Geeta Chhibber: Obstetrics and gynaecology, capacity training and building, programme implementation, human resources for health, midwifery education, guideline and training material development; quality improvement

Maria del Carmen Cravioto: Contraceptive endocrinology, epidemiological research, guideline development, academia, clinical practice, programme implementation

Alison Edelman: Obstetrics and gynaecology, complex family planning, evidence-based guideline development, curriculum development, programme development; innovations; capacity building and training; scientific editing

Nasser El Kholy: Obstetrics and gynaecology, STIs, HIV, breastfeeding, health reform and family medicine, capacity building, guideline development, managing health programmes

Anna Glasier: Reproductive medicine, research, high-level advocacy, obstetrics and gynaecology

Andy Gray: Pharmacology, pharmaceutical policy, antiretroviral therapy in resource-constrained settings, IT-based health-care solutions; pharmacovigilance; essential medicines; scientific editing; development and assessment of medicines; guideline development

Philip Hannaford: Clinical practice, epidemiology, women's health, primary care, research and knowledge exchange, pharmacovigilance

Elimase Kamanga Gama: User perspectives, nursing and midwifery, advocacy, programme management, community engagement

Anne-Beatrice Kihara: Health advocacy, sexual and reproductive health (SRH) rights, programme implementation, development of guidelines and training packages, adolescent SRH, clinical practice, capacity building, high-level advocacy

Seni Kouanda: Epidemiology, implementation science, public health, research, training, programme monitoring and evaluation, scientific writing, ethics

Enriquito Lu: Research and innovation, guideline and training curricula development, smart technologies, programme development and implementation, community engagement in reproductive health, health systems strengthening, monitoring and evaluation, e-learning

Catia Marzolini: Clinical pharmacology, drug-drug interactions, clinical research, infectious diseases, guideline development, antiretrovirals, pharmacy practice

Mari Nagai: Health systems strengthening, health workforce, universal health coverage, maternal and newborn health, vulnerable and isolated populations, health governance policy and strategy, service delivery, programme implementation and evaluation

Herbert Peterson: Public health, medical epidemiology, health sciences research, obstetrics and gynaecology, implementation science, Maternal and neonatal health, preventive medicine, policy formulation and programming

Farida Shah: Nursing and midwifery, community health nursing, health economics, health workforce planning and management, quality improvement, programme development and management, primary health care, humanitarian settings

Dirgha Raj Shrestha: Reproductive health programming, primary health-care management, public health, quality assurance, policy formulation and strategic planning, guideline development, programme implementation, service-delivery innovations, financial management

Carolina Sales Vieira: Obstetrics and gynaecology, reproductive endocrinology and infertility, complex family planning, women's health, policy development, contraceptive development, implementation of family planning programmes, academia, capacity building in family planning

Annex 2

Methods for the development of the *Medical eligibility criteria for contraceptive use*

A2.1 Development of the earlier editions of the MEC

This document builds on a process initiated in 1994 to develop the first edition of the *Medical eligibility criteria for contraceptive use* (MEC). The initial process involved comparing the medical eligibility criteria used by different agencies for various contraceptives, preparing summaries of published medical and epidemiological literature relevant to these criteria, and preparing a draft classification for review by a larger group of experts and agencies. Two expert Working Group meetings were organized by the World Health Organization (WHO), in March 1994 and May 1995, to review the background classifications and to formulate recommendations. The first edition of the MEC was published in 1996 *(1)*.

Since then, the guideline has been revised and updated multiple times. For each revision, a multidisciplinary expert Working Group (called Guideline Development Group [GDG] for later editions) was assembled to review newly published evidence pertaining to the topics addressed in the guideline. Moreover, with each revision, the Working Group/GDG used the opportunity to consider inclusion of new medical conditions and new contraceptive methods, as appropriate.

The second edition of the MEC was based on the recommendations of an expert Working Group meeting held at WHO headquarters on 8–10 March 2000, which brought together 32 participants from 17 countries, including representatives of many agencies and organizations. The Working Group reviewed new evidence since the last meetings in 1994 and 1995, primarily obtained from systematic reviews of the most recent literature. The second edition was published in 2000 *(2)*.

The third edition of the MEC was based on the recommendations of an expert Working Group meeting held at WHO on 21–24 October 2003, which gathered 36 participants from 18 countries, including representatives of many agencies and organizations. Systematic reviews of the evidence were prepared on topics for which newly published evidence had become available since the meeting in 2000; these reviews were presented to the Working Group and provided the basis for their decision-making. For this edition, a Guideline Steering Group (GSG), comprising seven external members, was established to advise WHO (on behalf of the larger expert Working Group) on matters related to published evidence on topics covered by the guideline that may have emerged during the interim period between the expert Working Group meetings. The third edition was published in 2004 *(3)*.

The fourth edition of the MEC was based on the recommendations that emerged from an expert Working Group meeting held at WHO headquarters on 1–4 April 2008, which brought together 43 participants from 23 countries, including representatives of nine agencies. Eighty-six new recommendations were developed, and 165 recommendations were revised for the fourth edition. All members of the expert Working Group were asked to declare any conflicts of interest and three of the experts declared conflicts of interest relevant to the subject matter of the meeting. These conflicts of interest were determined not to be sufficient to preclude the experts from participating in the deliberations and development of recommendations and thus they were not asked to withdraw from this process. The WHO Guidelines Review Committee (GRC) was established by the Director-General of WHO in 2007 to ensure that WHO guidelines are of a high methodological quality and are developed through a transparent, evidence-based decision-making process. The fourth edition of the MEC was reviewed by the newly established GRC and was approved on 16 September 2009 and published in 2010 *(4)*.

To ensure that the MEC guideline remains current between guideline meetings and editions, new evidence is identified through ongoing comprehensive bibliographic searching (the Continuous Identification of Research Evidence, or CIRE system) *(5)*. This evidence is synthesized and reviewed. In circumstances where new evidence warrants further evaluation, the GSG is tasked with evaluating such evidence and issuing interim guidance if necessary.

After the release of the fourth edition of the MEC, and before the fifth edition, interim guidance was issued twice containing updated recommendations.

- At the request of the GSG, WHO first convened a technical consultation on 26 January 2010 via

teleconference to review new evidence regarding the risk of venous thromboembolism (VTE) in postpartum women. The teleconference brought together members of the GSG and three experts on VTE during the postpartum period. All participants in the consultation were asked to declare any conflicts of interest; two participants declared a conflict of interest relevant to the subject matter, but they were not asked to withdraw from the deliberations or the formulation of recommendations because the WHO Secretariat Team and GSG did not find these conflicts of interest sufficient to preclude them from participating in this process. The GRC approved the updated recommendations on 21 April 2010 (which were later encompassed within the fifth edition).

- Following new findings of epidemiological studies regarding the use of hormonal contraception and HIV acquisition, progression and transmission, a second technical consultation was convened by WHO from 31 January to 1 February 2012. The meeting involved 75 individuals representing a wide range of stakeholders. Through a consensus-driven process, the group considered whether recommendations in the MEC pertaining to hormonal contraceptive use among women at high risk of HIV or women living with HIV should be changed in light of the accumulating evidence. All participants in the consultation were asked to declare any conflicts of interest; 13 participants declared an academic conflict of interest relevant to the subject matter of the meeting. These conflicts of interest were determined not to be sufficient to preclude them from participating in the deliberations and development of recommendations and so they were not asked to withdraw from this process. The GRC approved the technical statement presenting the conclusions and updated recommendations of the meeting on 15 February 2012.

The fifth edition of the MEC was based on the recommendations of a GDG which were developed during meetings convened by WHO on 14–15 May 2013, 9–12 March 2014, and 24–25 September 2014. The GDG consisted of 68 individuals representing a wide range of stakeholders from 21 countries. Fourteen topics (encompassing 575 recommendations) were reviewed by the GDG during this round of revisions of the MEC. Members of the GDG and members of the External Review Group (ERG) (who did not participate in the GDG meeting) submitted declaration of interest (DOI) forms to the WHO Secretariat Team for the MEC. Fourteen individuals declared an academic conflict of interest relevant to the MEC. The WHO Secretariat Team and the GDG reviewed all DOI forms and, except for two members (Anna Glasier and Régine Sitruk-Ware), found no conflicts of interest sufficient to preclude anyone from participating in the deliberations or development of recommendations. In the case of the two exceptions, the WHO Secretariat Team and the GDG agreed that their disclosed academic conflicts of interest were sufficient to preclude them from participating in the deliberations and development of recommendations relevant to ulipristal acetate (UPA) (Glasier) and the progesterone-releasing vaginal ring (Sitruk-Ware). The GRC approved the fifth edition of the MEC on 18 March 2015 and it was subsequently published *(6)*.

Again, after the release of the fifth edition and before the publication of this sixth edition, interim guidance was issued twice, relating to women at high risk of acquiring HIV.

- Owing to mixed evidence about whether hormonal contraceptive methods – particularly depot medroxyprogesterone acetate (DMPA) – are associated with an increased risk of HIV acquisition, WHO convened a technical consultation on 1–2 December 2016 to review accumulating evidence regarding women at high risk of acquiring HIV. The available evidence consisted of theoretical biological data and observational studies with important limitations. The GDG consisted of 19 individuals representing a wide range of stakeholders from 12 countries, including representatives of affected populations. The GDG reviewed new evidence presented in a published systematic review and developed new recommendations for DMPA (intramuscular and subcutaneous delivery) and noresthisterone enanthate (NET-EN) for women at high risk of HIV infection. Members of the GDG and the ERG (who did not participate in the GDG meeting) submitted DOI forms to the WHO Secretariat Team, who reviewed them along with the GDG and found no conflicts of interest sufficient to preclude anyone from participating in the deliberations or the development of recommendations. The GRC approved a new guidance statement on hormonal contraceptive eligibility for women at

high risk of HIV on 18 January 2017 (it is no longer available online due to being out of date; see next bullet point).

- New information, including results from a large, multinational randomized clinical trial on the safety of contraception for women at high risk of HIV, led WHO to convene another GDG meeting on 29–31 July 2019 to review all the available evidence and assess the need to revise any recommendations in the MEC. The GDG consisted of 28 participants from 19 countries, including experts in family planning and HIV, representatives from affected populations, clinicians, epidemiologists, researchers, programme managers, policy-makers and guideline methodologists. Members of the GDG and the ERG (who did not participate in the GDG meeting) submitted DOI forms to the WHO Secretariat Team, who reviewed them along with the GDG prior to the meeting and found no conflicts of interest sufficient to preclude anyone from participating in the deliberations or the development of the recommendations. The GRC approved a new guidance statement on 22 August 2019 *(7, 8)*.

A2.2 Development of the sixth edition of the MEC

A2.2.1 Contributors to guideline development

The groups responsible for the development of this sixth edition of the MEC included a WHO Secretariat Team (led by the Contraception and Fertility Care [CFC] unit of the WHO Department of Sexual and Reproductive Health and Research [SRH]), supported by a WHO GSG, an Evidence Synthesis Team (EST) (including a guideline methodologist and systematic review teams) and a GDG. The GDG comprised experts from all six WHO regions who reviewed the evidence and proposed recommendations to guide the update. In addition to the GDG members' participation in the GDG meetings to develop the recommendations, a subset of the GDG membership with extensive experience of advising WHO on family planning recommendations and guidelines since their inception in 2003 – including the GDG co-chairs – was also consulted during the planning and drafting stages of the guideline revision. An ERG peer-reviewed the draft guideline for clarity of content and recommendations. The full list of the members of the WHO Secretariat Team, the GSG, EST, GDG and ERG can be found the Acknowledgements section of this document.

A2.2.2 Prioritization of topics for the revision process

On 8–10 November 2022, the first of two GDG meetings (a scoping meeting) was convened in Montreux, Switzerland, to initiate the revision process for the development of the sixth edition of the MEC. Prior to the meeting, the CIRE system *(5)* was used to identify recommendations from the fifth edition of the MEC for which new evidence was available.

In advance of the first GDG meeting, to further inform decision-making with respect to clinical questions and priorities, the WHO Secretariat Team reached out to a broad group of stakeholders with expertise in family planning and familiarity with the guideline, including individuals from several implementing agencies, professional societies, and WHO regional and country offices, as well as the ministry of health in each of the WHO Member States. They were invited to complete a 26-question anonymous, online survey available in English, French, Portuguese, Russian and Spanish, and to forward the link for the survey to others in their professional communities familiar with family planning and the MEC during the period from 10 January to 28 February 2022. The survey included a list of key areas for consideration during the process of updating the MEC. Respondents were asked to rank the importance

of various outcomes pertaining to topics that had been identified as priority questions within the fifth edition, as well as to suggest other outcomes and questions of clinical importance to be considered for review during the development of the sixth edition. Respondents were also asked to give input regarding the format of the guideline. Representing all six WHO regions, 335 individuals submitted completed surveys; the compiled results were presented to the GDG during the meeting in November 2022 to inform the prioritization process.

At this first GDG meeting, the task for the GDG was to prioritize topics for review and consideration at the second GDG meeting, to be convened at a later date (in July 2024; see section A2.2.4 below), such that there would be time in between the meetings to prepare systematic reviews on those prioritized topics. At the first GDG meeting, the WHO Secretariat Team presented brief summaries they had prepared covering new evidence so that the GDG members could determine whether the existing recommendations in the MEC remained consistent or had become inconsistent with the updated body of evidence. By the end of the three-day meeting, the topics had been allocated into three groups as follows: (i) recommendations considered to be possibly inconsistent with the updated body of evidence (i.e. requiring an updated systematic review and discussion at a second GDG meeting); (ii) recommendations considered to be consistent with the updated body of evidence, and recommendations for which no new evidence had been identified through the CIRE system (i.e. not requiring any further review during the MEC revision process, and therefore reaffirmed by the GDG); and (iii) new conditions, contraceptive methods and/or formulations of methods (e.g. different ingredients/hormones, doses or delivery systems) selected for review and possible inclusion in the new edition of the MEC based on their global relevance and availability in multiple countries. The six topics prioritized for review by the GDG for the sixth edition of the MEC are presented in Box A2.1.

Box A2.1 Prioritized topics reviewed by the GDG for the sixth edition of the MEC

Selection of topics for review using the GRADE process for the MEC sixth edition:

Existing topics with new evidence identified or controversial among stakeholders (four topics):

- progestogen-only contraceptive (POC) use among breastfeeding women
- intrauterine device (IUD) use among breastfeeding women
- hormonal contraceptive use among women using antiretroviral therapy (ART)
- repeated use of emergency contraceptive pills (ECPs).

New topics to consider adding to the MEC for the sixth edition (two topics):

- HIV pre-exposure prophylaxis (PrEP)
- Inflammatory bowel disease (IBD).

All other existing recommendations from the MEC fifth edition (approximately 2000 recommendations) were reaffirmed by the GDG in July 2024[a].

GRADE: Grading of Recommendations Assessment, Development and Evaluation.

[a] Evidence continuously monitored using the CIRE system *(5)*. Topics not prioritized for update for the sixth edition.

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach to evidence review is described at the GRADE Working Group's website *(9)*. For the six prioritized topics outlined in Box A2.1, the GDG developed questions during the November meeting using the "PICO" format (i.e. questions with specified populations, interventions, comparators and outcomes) to serve as the framework for conducting the systematic reviews and compiling the GRADE evidence tables. To inform the MEC recommendations, PICO questions generally guide the systematic review to focus on studies of populations with the condition or characteristic of interest using a specific contraceptive method compared with the same population not using the method, reporting on critical safety outcomes. PICO questions were also crafted to identify relevant indirect evidence that may have included comparator populations without the condition or characteristic of interest using the same method or reporting on surrogate outcomes. These systematic reviews, therefore, assessed the safety risks of using a given method among women with a particular medical condition or characteristic. The remainder of the existing recommendations were determined to be consistent with the body of published evidence and did not need to be formally reviewed for this revision.

A2.2.3 Evidence identification and synthesis

For each of the topics listed in Box A2.1, systematic reviews were conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to answer PICO questions regarding safety outcomes *(10)*. A protocol for each review was developed and registered in the International Prospective Register of Systematic Reviews (PROSPERO) open access online database *(11)*. The systematic reviews are available as open access in a special issue of *BMJ Sexual & Reproductive Health (12)*. In general, multiple databases (e.g. PubMed and Cochrane databases) were searched for studies published in any language in a peer-reviewed journal to inform the new (or updated) systematic reviews. Searches were performed from database inception to 31 August 2023 for the updated reviews on POC and IUD use among breastfeeding women, from 1 January 2015 through 31 December 2023 for the updated review on women using ART (which included the new condition, HIV PrEP), from database inception through 28 February 2024 for repeated ECP use, and from database inception through 15 July 2024 for the updated review on inflammatory bowel disease (IBD) *(13)*.

Reviews of reference lists and direct communications with experts in the field were also used to identify other studies, including those accepted by journals but not yet published (in press). Neither grey literature nor conference abstracts were included in the systematic reviews. Due to heterogeneity of study designs, contraceptive formulations and outcome measures, meta-analyses were generally not performed. The risk of bias for each study included in a systematic review was assessed by review authors using version 2 of the Cochrane tool for assessing risk of bias in randomized trials (RoB 2) *(14)* and a modified version of the Cochrane tool to assess risk of bias in non-randomized studies (ROBINS-I) *(15)*.

For each PICO question for which direct evidence was found and clinical outcomes were reported, GRADE evidence profiles were then prepared by the guideline methodologist to assess the quality of the summarized evidence. These evidence tables included the range of the estimates of effect for each clinical outcome assessed. The systematic reviews were made electronically available to all GDG members prior to the second GDG meeting. The written and orally presented systematic reviews and GRADE evidence profiles served as the basis for the GDG's deliberations. Further details about the development of the updated recommendations, the PICO questions and all the GRADE tables are available in the web annex.

A2.2.4 Decision-making during the final GDG meeting

WHO convened the second and final GDG meeting on 23–25 July 2024, at WHO headquarters in Geneva, to review the evidence for the prioritized topics (Box A2.1) and, where appropriate, develop or revise specific recommendations for this sixth edition of the MEC. Members of the GDG and members of the ERG (who did not participate in the GDG meeting) submitted DOI forms to the WHO Secretariat Team: eight individuals declared an academic conflict of interest relevant to the MEC. The WHO Secretariat Team and the GSG members reviewed all DOI and, except for two members (Anna Glasier and Carolina Sales Vieira), found no conflicts of interest sufficient to preclude anyone from participating in the deliberations or

development of recommendations. In the case of the two exceptions, the WHO Secretariat Team and the GSG members agreed that their disclosed academic conflicts of interest were sufficient to preclude Anna Glasier from participating in the deliberations and development of recommendations relevant to emergency contraception (EC), and Carolina Sales Vieira from formulating recommendations or voting on issues related to levonorgestrel-releasing intrauterine devices (LNG-IUDs) and implants. For details of the declared academic interests see Annex 1.

The GDG considered the overall quality of the safety evidence, paying particular attention to the strength and consistency of the data, as required by the GRADE approach to evidence review *(9)*. In addition, the GDG applied the GRADE evidence-to-decision (EtD) framework to ensure that recommendations were based on the consideration of the quality of the evidence, the balance of benefits and harms, the values and preferences of contraceptive users and health workers, the priority of the problem, acceptability to clients, cost and resource implications, feasibility of implementation, and health equity. In most cases, the quality of evidence pertaining to each recommendation was low or very low and only addressed potential harms related to contraceptive use.

Systematic reviews of evidence on the values and preferences of contraceptive users and health workers, as well as the findings of a global survey undertaken by the White Ribbon Alliance, were used to incorporate these considerations into the MEC guideline. One systematic review included peer-reviewed studies published between 2005 and 2020 *(16, 17)*. Articles were included if they presented primary data (qualitative or quantitative) on contraceptive users' and health workers' values, preferences, views and concerns regarding the contraceptive methods considered in the MEC. Applying a systematic search of 10 electronic databases and secondary references, 423 original research articles from 93 countries conducted among various groups of end-users and health workers in all six WHO regions and all four World Bank income classification categories met the review's inclusion criteria. While most studies focused generally on women of reproductive age, some considered the views of specific groups, such as adolescents, nulliparous women, postpartum women, women seeking abortion services and women living with HIV. Six studies examined provider perspectives.

Across studies, values and preferences relating to contraceptive methods consistently centred on themes of choice, ease of use, side-effects and efficacy *(17, 18)*. Obtaining informed consent is essential. Women wanted to have a range of contraceptive options that were simple to use, had few side-effects and worked to prevent unwanted pregnancy. Women desired comprehensive, accurate information about their contraceptive options. While women generally wanted control over their final choice of method, many also wanted their health workers to participate in the decision-making process in a way that emphasized the women's values and preferences *(17)*. Providers also valued women's choices in deciding on contraceptive methods, and recommended methods based on their efficacy and safety as well as the women's preferences, although there were some gaps between provider knowledge about contraceptive method safety and their actual practices *(19)*.

Drawing upon the findings of the systematic reviews and the voices of 1.2 million women from 114 countries who were surveyed by the White Ribbon Alliance about their need for reproductive services *(20)*, the GDG endorsed an approach to client preferences and values that prioritizes the availability of a wide range of contraceptive options and the removal of unnecessary medical barriers. This approach facilitates access to contraceptive services by engaging a woman's unique personal preferences in contraceptive selection as well as the values she places on possible risks and benefits *(18, 21)*. Decisions on contraceptive selection are complex, multifactorial and changeable because they are based on each woman's temporal, societal and cultural context, as well as her unique personal history and circumstances; hence, it is critical that each woman be afforded the right to choose from a wide range of contraceptive options *(17)*. Decision-making regarding contraceptive methods requires weighing up the advantages and disadvantages of specific methods according to individual circumstances, perceptions and interpretations.

Owing to the focus of this guideline on the safety of different contraceptive methods for women with specific medical conditions or personal characteristics, opportunity costs were not formally assessed during the formulation of these recommendations since costs may vary widely throughout different regions *(22)*.

Since publication of the first edition of the MEC in 1996, the 1–4 scale has been used to categorize

medical eligibility for contraceptive use (see section 3 for the four categories and further details on how to interpret them in practice). These categories are well known by health workers, professional organizations, training institutions and ministries of health as the basis for determining the eligibility of women with specific medical conditions or characteristics to use a range of contraceptive methods. To arrive at a decision on which MEC category to designate (within the range of 1–4), the GDG considered the GRADE evidence profiles and the EtD framework domains (these are provided in the web annex). As a result, to avoid confusion and retain consistency, it was determined that recommendations would not be defined as "strong" or "conditional" according to GRADE methodology and would instead retain the 1–4 scale reflecting eligibility for contraceptive use.

Through consensus, the GDG arrived at new and revised recommendations, as well as upholding most of the existing recommendations using the categories 1–4. For the topics they reviewed during the final GDG meeting in 2024 (see Box A2.1), the GDG considered the potential benefits and risks of contraceptive method use with respect to each of the medical conditions or personal characteristics assessed.

A draft of the entire revised MEC document was sent to the ERG, which comprised nine experts who did not participate in the GDG meeting. The ERG members served as independent peer reviewers of the MEC and the *Selected practice recommendations for contraception use* (SPR) guidelines, whose role was to ensure technical accuracy, clear communication of the content, and applicability to various contexts and settings. All ERG members submitted DOI forms to the WHO Secretariat Team: three individuals declared conflicts of interest. The WHO Secretariat Team and the GSG reviewed all DOIs and, except for one member (Chelsea Moroni), found no conflicts of interest sufficient to preclude anyone from reviewing and commenting upon the updated draft of the MEC. The WHO Secretariat Team determined that Chelsea Moroni's disclosed academic conflicts of interest were sufficient to preclude her from reviewing recommendations relevant to contraception and ARVs and PrEP. For details of the declared academic interests, see Annex 1. Comments received from these reviewers were addressed and incorporated into this guideline by the WHO Secretariat Team as appropriate. The final version of this document was approved by the GRC on 10 February 2025.

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