

# New recommendations from the World Health Organization (WHO) for the use of contraceptive methods

Ma. del Carmen Cravioto\*

Department of Biology of Reproduction, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, Mexico

## Abstract

The Medical Eligibility Criteria for Contraceptive Use of the World Health Organization have been updated recently. These criteria constitute a guideline for the selection of family planning methods appropriated for women and men with known medical conditions or personal characteristics of medical relevance. The guideline's last updating incorporates recommendations for the use of a new emergency contraceptive pill and three long-acting hormonal methods, and revises some previously established recommendations. This article provides information on the last edition of such document and aims to contribute to its dissemination. (Gac Med Mex. 2016;152:539-41)

**Corresponding author:** Ma. del Carmen Cravioto, mcravioto@prodigy.net.mx

**KEY WORDS:** Contraceptive methods. Medical guidelines. Family planning. World Health Organization.

## Introduction

On July 2015, the World Health Organization (WHO) published on its website the 5<sup>th</sup> edition of the Medical Eligibility Criteria (MEC) for Contraceptive Use, an evidence and consensus-based guideline directed to health policy-makers, family planning program managers and the scientific community<sup>1</sup>. Their purpose is to contribute to improve the quality of care in family planning.

The WHO guidance offers recommendations for the selection of the most appropriate family planning methods for women and men with medical conditions or medically relevant characteristics. These recommendations are based on the most recent clinical and

epidemiological information and are expressed using easy-to-understand numerical scales or letters.

Based on knowledge emerged since the publication of the 4<sup>th</sup> edition in 2009, some of the existing recommendations have been revised and others referring to the use of a new emergency contraceptive pill and three long-acting hormonal methods have been incorporated.

For over nearly 20 years, the WHO guidance has constituted a valuable reference for the development of standards that regulate the provision of family planning services of many countries, including Mexico. Owing to the relevance family planning has in the context of national health programs, and particularly of those related to reproductive health, it is relevant for the WHO guidelines to be swiftly and opportunely diffused.

### Correspondence:

\*Ma. del Carmen Cravioto  
Instituto Nacional de Ciencias Médicas  
y Nutrición Salvador Zubirán  
Vasco de Quiroga, 15  
Col. Belisario Domínguez, Sección XVI, Del. Tlalpan  
C.P. 14080, Ciudad de México, México  
E-mail: maria.craviotog@incmnsz.mx  
mcravioto@prodigy.net.mx

Date of reception: 22-07-2015

Date of acceptance: 24-07-2015

The purpose of this work is to provide information on the changes made in the 5<sup>th</sup> edition of the MEC for Contraceptive Use, with an emphasis on those with the highest impact on current clinical practice.

## Modifications to existing recommendations

Among the recommendations that have been modified, those related to the use of progestin-only oral contraceptives and subdermal implants during the first 6 weeks postpartum in breastfeeding women stand out. Previously, the WHO recommended not using these methods under the referred condition (category 3); according to the new consensus, the advantages of using these methods are now considered to generally outweigh theoretical or proven risks (category 2).

Also worth mentioning is the fact that the recommendations on the use of hormonal contraceptives in women receiving antiretroviral therapy were broadened by offering individualized information for 16 different drugs.

## Recommendations for the use of new contraceptive methods

### *Ulipristal acetate*

Ulipristal acetate is a new emergency contraceptive that is administered after intercourse to prevent undesired pregnancies when intercourse has occurred without contraceptive protection<sup>2</sup>. It is a progesterone receptors selective modulator that acts by inhibiting or delaying ovulation. A single 30-mg dose, orally administered on any of the first 5 days after unprotected intercourse is enough to prevent most pregnancies. No serious side effects have been reported with ulipristal acetate and, importantly, in 232 pregnancies where there was involuntary exposure to the contraceptive, no teratogenic effects were observed in the products of conception.

According to the WHO guidance, ulipristal acetate can be used without restrictions, even in women with history of ectopic pregnancy, obesity or on treatment with CYP3A4 inhibitors (category 1). In breastfeeding women or in those who suffer from migraine, cardiovascular conditions or severe liver disease, the method can generally be used, since the benefits it offers outweigh the risks entailed by its use (category 2).

Ulipristal acetate was introduced in Mexico in 2014 (FemelleOne<sup>®</sup>, Laboratorios Elea, Mexico), but in Europe it has been available since 2009 (EllaOne<sup>®</sup>, HRA

Pharma, Paris, France), and in the USA since 2010 (Ella<sup>®</sup>, Watson Pharmaceuticals, Morristown, NJ). In Europe, it is sold without medical prescription.

### *Progesterone-releasing vaginal ring*

This is a long-acting contraceptive method indicated for breastfeeding women who want to prolong the contraceptive effect of lactation amenorrhea<sup>3</sup>. It is a ring-shaped device that is inserted in the vagina and it contains a mixture of natural progesterone and Silastic. Continuously-released progesterone (approximately 10 mg/day) throughout 90 days is diffused through the vaginal walls and reaches the general circulation. It acts by inhibiting ovulation and by modifying cervical mucus to inhibit sperm penetration.

Vaginal ring contraceptive effectiveness is higher than 98.5%. Its use does not modify the volume of milk or infant development, and its most common side effects are leucorrhea, urinary discomfort, spotting and vaginal infections. The WHO considers it can be used without restrictions since the fourth week postpartum.

The progesterone-releasing vaginal ring (Progering<sup>®</sup>) was developed by the Population Council, NY, and has so far been marketed only in some Latin American countries: Chile, Peru, Bolivia, Dominican Republic and Ecuador. In Mexico, it is in registration process.

### *Sino-implant II*

It is a subdermal contraceptive implant manufactured in China (by Shanghai Dahua Pharmaceutical Co. Ltd.) where it has been used since 1994<sup>4</sup>. It is comprised by two Silastic rods that combined contain 150 mg of levonorgestrel, i.e., the same active substance of other contraceptive implants considered in previous editions of the WHO MEC (Jadelle<sup>®</sup>, Norplant-II<sup>®</sup>). Similar to those implants, Sino-implant-II possesses high effectiveness, with pregnancy probability during the first year of use being estimated to range from 0.0% to 0.1%, and 4-year cumulative probability, from 0.9% to 1.06%. Sino-implant-II side effects are not different from those of other subdermal implants and, therefore, the recommendations for use are the same as those issued for all types of contraceptive subdermal implants.

Sino-implant-II is licensed in at least 21 countries, mostly from Africa and Asia, and it is sold under several names (Zarin<sup>®</sup>, Femplant<sup>®</sup>, Trust<sup>®</sup>, Simplant<sup>®</sup>) at a lower price than Jadelle<sup>®</sup>. No levonorgestrel-releasing implant is currently available in the Mexican market.

### ***Depot medroxyprogesterone acetate, subcutaneous***

Depot medroxyprogesterone acetate (DMPA) for subcutaneous administration (depo-subQprovera 104<sup>®</sup> or Sayena<sup>®</sup>, Pfizer) is a new DMPA formulation<sup>5</sup>. Although the hormone dose contained in the subcutaneously-administered formulation (104 mg in 0.65 ml) is approximately 30% lower than the dose of the original product administered by the intramuscular route (150 mg in 1 ml), its effectiveness and safety are equivalent. Both formulations suppress ovulation throughout 3 months, with its contraceptive effectiveness being 99.9%, even in obese women. DMPA side effects administered by any route are similar, with

menstrual pattern alterations and bone mineral density decrease being the most important. The WHO recommendations for the use of DMPA do not vary dependent on the administration route.

### **References**

1. World Health Organization. Medical eligibility criteria for contraceptive use, fifth edition 2015. Full text and executive summary. Available in: [http://www.who.int/reproductivehealth/topics/family\\_planning/en/](http://www.who.int/reproductivehealth/topics/family_planning/en/).
2. Raymond EG, Cleland C. Emergency contraception. *N Engl J Med.* 2015;372:1342-8.
3. Nath A, Sitruk-Ware R. Progesterone vaginal ring for contraceptive use during lactation. *Contraception.* 2010;82:428-34.
4. Steiner MJ, López LM, Grimes DA, et al. Sino-implant (II)- a levonorgestrel-releasing two-rod implant: systematic review of the randomized controlled trials. *Contraception.* 2010;81:197-201.
5. Jain J, Jakimiuk AJ, Bode FR, Ross D, Kaunitz AM. Contraceptive efficacy and safety of DMPA-SC. *Contraception.* 2004;70:269-75.