

# Contraceptive Method Considerations for Clients with HIV Including Those on ART: Provider Reference Tool

| HIV-related*<br>Treatments or Conditions →        | Antiretroviral Therapy (ART)            |             |             |                                           |                         | Rifampicin or<br>rifabutin | HIV Disease<br>Stage I or II                | HIV Disease<br>Stage III<br>or IV         |   | Increased<br>Risk of<br>STIs |   | Current<br>purulent<br>cervicitis<br>(women only),<br>gonorrhea<br>or chlamydia<br>infection |   |
|---------------------------------------------------|-----------------------------------------|-------------|-------------|-------------------------------------------|-------------------------|----------------------------|---------------------------------------------|-------------------------------------------|---|------------------------------|---|----------------------------------------------------------------------------------------------|---|
|                                                   | NRTIs                                   | NNRTIs      |             | Ritonavir or<br>Ritonavir-<br>boosted PIs | Integrase<br>Inhibitors |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Contraceptive Methods* ↓                          | ABC, TDF, AZT,<br>3TC, DDI, FTC,<br>D4T | ETR,<br>RPV | EFV,<br>NVP | RTV, ATV/r,<br>LPV/r, DRV/r               | RAL, DTG                |                            | asymptomatic<br>or mild clinical<br>disease | severe or<br>advanced<br>clinical disease |   | excluding<br>HIV infection   |   |                                                                                              |   |
| DMPA (3-month injectable)                         |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Implants                                          |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| NET-EN (2-month injectable)                       |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Progestin-only oral contraceptives                |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Combined oral contraceptives                      |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Combined injectables (1 month)                    |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Combined patch or ring                            |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |
| Copper IUD <sup>a,b</sup>                         |                                         |             |             |                                           |                         |                            |                                             | I                                         | C | I                            | C | I                                                                                            | C |
| Hormonal IUD (LNG IUD or LNG-IUS) <sup>a,b</sup>  |                                         |             |             |                                           |                         |                            |                                             | I                                         | C | I                            | C | I                                                                                            | C |
| Tubal ligation <sup>b</sup>                       |                                         |             |             |                                           |                         |                            | A                                           | S                                         |   | A                            |   | D                                                                                            |   |
| Vasectomy <sup>b</sup>                            |                                         |             |             |                                           |                         |                            | A                                           | S                                         |   |                              |   | D†                                                                                           |   |
| Emergency contraceptive pills (ECPs) <sup>c</sup> |                                         |             |             |                                           |                         |                            |                                             |                                           |   |                              |   |                                                                                              |   |

\* For other eligibility conditions and contraceptive methods see: *Medical Eligibility Criteria (MEC) for Contraceptive Use, 5th edition*. Geneva: World Health Organization, 2015.

Available: [http://www.who.int/reproductivehealth/publications/family\\_planning/en/index.html](http://www.who.int/reproductivehealth/publications/family_planning/en/index.html)

- Category 1 No restrictions for use.
- Category 2 Generally use; some follow-up may be needed.
- Category 3 Usually not recommended unless other more appropriate methods are not available or acceptable.
- Category 4 The method should not be used.
- No restrictions (although not formally classified by WHO).

a If a woman is not clinically well on ART, an IUD should not be inserted until health improves (Category 3).

b See the MEC for additional clarification.

c Strong liver enzyme inducers (rifampicin, efavirenz) may reduce the effectiveness of ECPs.

I or C Initiation or Continuation: Eligibility category may vary depending on whether a woman is initiating or continuing to use a method. Where I or C is not marked, the category is the same for initiation and continuation.

Category 3 if risky behaviors are present; otherwise, Category 2 (STI prevalence or young age alone are not reasons to deny an IUD).

A Accept: no medical reason to deny the sterilization procedure.

S Special: the procedure should be undertaken in a setting with an experienced surgeon and staff and other medical support.

D Delay: the procedure is delayed until the condition is evaluated and/or corrected.

† Men seeking a vasectomy should also delay if they have other active STIs, a scrotal skin infection, balanitis, epididymitis, or orchitis.

**Information for Providers on HC/ARV Interaction<sup>1</sup>** • • • • •

Concurrent use of hormonal contraceptives (HCs) and antiretroviral drugs (ARVs) can lead to interactions that affect how the liver metabolizes the drugs. This, in turn, can lead to reduced effectiveness of some hormonal methods. Drugs used for treatment of tuberculosis (TB) interact with HCs in a similar way, reducing effectiveness of some HCs (see chart). When TB and ARV drugs are taken together, it is possible that HC effectiveness will be reduced even more than by ARV or TB treatment alone. ARV effectiveness or toxicity seems unaffected by concurrent use of HC.

## How do ARVs affect COC effectiveness?

- Commonly used non-nucleoside reverse transcriptase inhibitors (NNRTIs), particularly efavirenz, may reduce the contraceptive effectiveness of combined oral contraceptives (COCs). In studies, pregnancy rates were somewhat higher among COC users taking an efavirenz-containing ARV regimen (11–15%), compared with COC users on a nevirapine-containing ARV regimen (6–11%). This constitutes a slight increase when compared to a typical COC pregnancy rate of 7–8%.
- Protease inhibitors (PIs) and nucleoside reverse transcriptase inhibitors (NRTIs) do not reduce COC effectiveness. Studies show that ovulation remains consistently suppressed in COC users who take PIs, NRTIs, or integrase inhibitors.

### How do ARVs affect contraceptive implant effectiveness?

- Concurrent use of contraceptive implants and NNRTIs may reduce implant effectiveness. In studies, pregnancy rates among implant users who take NNRTIs ranged from 5.5 to 15% and were higher among levonorgestrel implant users (two-rod implants) who take efavirenz (7.1–15%) compared to etonogestrel implant users (one-rod implants) on efavirenz (0–5.5%).
- Pregnancy rates are not affected in implant users on either NRTIs or PIs. There is no evidence that contraceptive effectiveness of implants is affected by integrase inhibitors.

## How do ARVs affect DMPA effectiveness?

- Effectiveness of the injectable depot medroxyprogesterone acetate (DMPA) is not reduced by ARVs.
- Studies of DMPA users who take NNRTIs found that pregnancy rates were comparable or even lower than pregnancy rates in DMPA users who are not on ARV therapy. This was true for users of both efavirenz and nevirapine.
- While there are no data for injectable norethisterone enanthate (NET-EN), it is possible that its effectiveness could be affected by ARVs, so some caution is warranted.
- No ovulations or pregnancies were reported in DMPA users taking PIs or NRTIs; no evidence that contraceptive effectiveness of DMPA is affected by integrase inhibitors.

While the evidence is limited, it is unlikely that the effectiveness of the hormonal intrauterine device (LNG IUD) is reduced by drug interaction with ARVs.

## How does HC/ARV interaction affect contraceptive use and counseling?

Available evidence does not support limiting access to any hormonal contraceptive method for women on antiretroviral therapy (ART). Efficacy is only one of many factors that a woman may consider when choosing a contraceptive method. Client-centered counseling, that addresses the specific health and social needs of clients living with HIV, is essential to helping women on ART make an informed decision about a contraceptive method and then use it effectively. When counseling women on ART about contraception, providers should:

- Ensure that every woman has the opportunity to make voluntary, informed decisions about whether and when she becomes pregnant or whether to use contraception and which method to use. Do not restrict the use of any contraceptive method, unless medically contraindicated by the WHO *Medical Eligibility Criteria*.
- Emphasize the importance of using condoms in addition to a hormonal method (dual method use). This maximizes prevention of pregnancy and STIs/HIV. When used consistently and correctly, condoms offer protection from pregnancy if a primary contraceptive method (e.g., implants, COCs) fails.
- Promote informed choice by ensuring that family planning counseling for clients with HIV includes discussion of how the effectiveness of hormonal contraceptives may be affected by ARVs and then support a woman's decision.
  - Explain that COCs and contraceptive implants may be less effective in women who use certain ARVs, particularly efavirenz. This is also true for other, less commonly used contraceptives, such as the patch, vaginal ring, combined injectables, progestin-only pills, and NET-EN.
  - Counsel contraceptive pill users about the importance of taking their pill on time. Missing contraceptive pills while on ART may further reduce contraceptive effectiveness.<sup>2</sup>
  - Counsel clients about effective contraceptive methods that do not interact with ARVs, such as DMPA or IUDs (copper or hormonal). For clients who have all of the children they desire, a permanent method, such as female or male sterilization, may be another good option.
  - Discuss the client's ARV regimen. Counsel on dual method use and consider the possibility of switching to another ARV regimen if there is potential for interaction with the desired contraceptive method.
- Discuss the risk of unintended pregnancy. Encourage women to come back without delay if they experience early signs/symptoms of pregnancy, such as breast tenderness, nausea, late menstrual period, weight change, moodiness, or being tired all the time. Most of these signs/symptoms may also be side effects of hormonal contraception so a pregnancy test will be needed to rule out pregnancy.
- Educate about emergency contraceptive pills (ECPs) to be used if unprotected sex occurred in the last 5 days. Give ECPs to have on hand to use in an emergency. Explain that they should be taken within 120 hours after unprotected sex, the sooner the better, and the ECP dose is the same regardless of the ARV regimen.

<sup>1</sup> For more details on drug interactions: Kavita Nanda, et al., Drug interactions between hormonal contraceptives and antiretrovirals. *AIDS*. 2017; 31: 917–952.

<sup>2</sup> For more information on how to take oral contraceptives: *Selected practice recommendations for contraceptive use, 3rd edition*. Geneva: World Health Organization, 2016.