



Didactic Series

Contraceptives and Antiviral Therapy

Kirsten B. Balano, PharmD
University of California, San Francisco
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Learning Objectives

- 1) Identify preferred ARV regimens safe to use with OCPs.
- 2) Describe potential interactions with ARV and OCPs.
- 3) Identify alternative contraceptive choices with ARV.

Polling Question 1

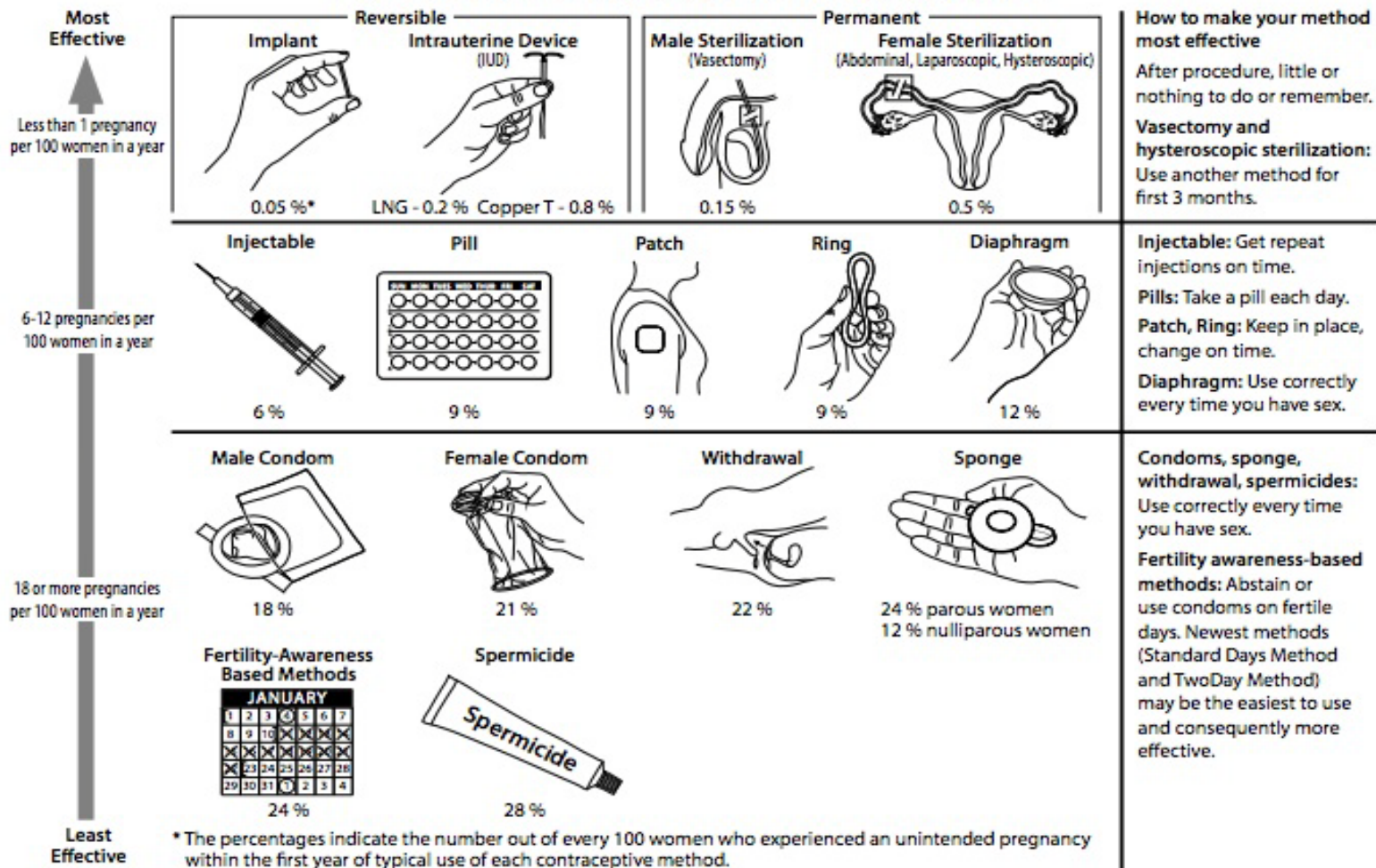
For the last HIV-infected woman where you discussed contraceptive methods – what form of contraception was decided upon?

- 1) IUD
- 2) Hormonal (injection)
- 3) Hormonal (patch)
- 4) Hormonal (Oral)
- 5) Barrier method (condom/diaphragm)
- 6) Sterilization
- 7) Other
- 8) I have not had this conversation recently enough to remember

Meet NL

- 29 yo HIV-infected woman
- Uncontrolled diabetes: HgA1c 14.2
 - On Insulin – uses inconsistently
- Uncontrolled HIV: HIV VL 23,000, CD4 420
 - On Raltegravir, tenofovir/emtricitabine – uses inconsistently
- Active methamphetamine, homeless
- Would like a pregnancy test

Effectiveness of Family Planning Methods



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U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.

Other Methods of Contraception

Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.

Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Adapted from World Health Organization (WHO) Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). Knowledge for health project. Family planning: a global handbook for providers (2011 update). Baltimore, MD; Geneva, Switzerland: CCP and WHO; 2011; and Trussell J. Contraceptive failure in the United States. *Contraception* 2011;83:397-404.

Contraceptive Choices Safe with ARV



CDC Medical Eligibility Criteria for Contraceptive Use – June 2012

Condition	Sub-condition	Combined pill, patch, ring		Progestin-only pill		Injection		Implant		LNG-IUD		Copper-IUD	
		I	C	I	C	I	C	I	C	I	C	I	C
HIV	High risk	1		1		1*		1		2	2	2	2
	HIV infected (see also Drug Interactions) †	1*		1*		1*		1*		2	2	2	2
	AIDS (see also Drug Interactions) †	1*		1*		1*		1*		3	2*	3	2*
	Clinically well on therapy	If on treatment, see Drug Interactions								2	2	2	2
Drug Interactions													
Antiretroviral therapy	a) Nucleoside reverse transcriptase inhibitors	1*		1		1		1		2/3*	2*	2/3*	2*
	b) Non-nucleoside reverse transcriptase inhibitors	2*		2*		1		2*		2/3*	2*	2/3*	2*
	c) Ritonavir-boosted protease inhibitors	3*		3*		1		2*		2/3*	2*	2/3*	2*

I = Initiate C = Continue

Key:	
1	No restriction (method can be used)
2	Advantages generally outweigh theoretical or proven risks
3	Theoretical or proven risks usually outweigh the advantages
4	Unacceptable health risk (method not to be used)

Drug-Drug Interactions

- Estrogens and Progestins metabolized by CYP3A4
- NNRTI: **Induce CYP3A4**
 - Nevirapine>Efavirenz....Rilpivirine>Etravirine
- PI: Inhibit CYP3A4
 - But can also **induce**, even when ritonavir-booster
- NRTI: No Effect
- INST: No Effect on CYP3A4
 - Cobicistat can inhibit (**?induce**)

Contraceptives/HRT	Atazanavir	Darunavir	Ritonavir	Efavirenz	Lamivudine (3TC)	Tenofovir	Dolutegravir	Elvitegravir/cobicistat	Raltegravir
Ethinylestradiol	☐	☐	☐	☐	◇	◇	◇	☐	◇
Levonorgestrel	☐	☐	☐	☐	◇	◇	◇	☐	◇
Medroxyprogesterone (IM depot injection)	☐	◇	◇	☐	◇	◇	◇	◇	◇
Medroxyprogesterone (oral)	☐	☐	☐	☐	◇	◇	◇	☐	◇
Norethisterone (Norethindrone)	☐	☐	☐	☐	◇	◇	◇	☐	◇
Norgestimate	☐	☐	☐	☐	◇	◇	◇	☐	◇

HIV-druginteractions.org

- Atazanavir/ritonavir can be used with OCP, if dose of EE >25mcg
- Elvitegravir/Cobicistat can be used with OCP if dose of EE>30mcg and norgestimate is progestin

Other Considerations

- No protection from other STI with most methods
 - Except condoms
- No increased risk of HIV transmission
- No increased risk of HIV progression
- Some concern about inducing new infection with IUD placement in immunocompromised patient w/o virologic control

Back to NL

- 29 yo HIV-infected woman
- Uncontrolled diabetes: HgA1c 14.2
 - On Insulin – uses inconsistently
- Uncontrolled HIV: HIV VL 23,000, CD4 420
 - On Raltegravir, tenofovir/emtricitabine – uses inconsistently
- Active methamphetamine, homeless
- Pregnancy test is negative
- What contraceptive recommendations?

Polling Question 2

What would you suggest for this patient?

- 1) IUD
- 2) Hormonal (injection)
- 3) Hormonal (patch)
- 4) Hormonal (Oral)
- 5) Barrier method (condom/diaphragm)
- 6) Sterilization
- 7) Other

References

- <http://www.cdc.gov/reproductivehealth/unintendedpregnancy/usmec.htm>
- Hiv-druginteractions.org
- Phillips SJ, Curtis KM, Polis CB “Effect of Hormonal Contraceptive Methods on HIV disease progression: A Systematic Review.” AIDS 2013 27:787-794.