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Cases from the Perinatal HIV Hotline

Contraception, Preconception, and Conception

Christine Pecci & Lealah Pollock

Clinician Consultation Center, UCSF

Objectives

- To encourage all clinicians to ask all patients about their fertility desires
- To list contraceptive options for women living with HIV or at risk for HIV
- To describe preconception care in the context of HIV

Poll # 1 (Multiple choice)

26 yo perinatally infected female, h/o nonadherence to treatment. Takes sporadic doses during the week and then doesn't take meds on weekend. Has never been fully suppressed. Now back in care, wants to be more adherent.

Last labs: CD4: 50; VL: 18,150

Do you discuss reproductive health and how? (Choose one)

A. No, focus on adherence and discuss later
B. No, I assume she's using condoms
C. Yes, ask if she's interested in contraception
D. Yes, ask if she is thinking about pregnancy
E. Other

Establish reproductive desires

- ☐ WHO?
  - ☐ Every reproductive-aged woman and man
  - ☐ Even if they do not have a current sexual partner
- ☐ WHEN?
  - ☐ At initial evaluation
  - ☐ Intervals throughout the course of care

Poll #2 (multiple choice)

30 yo man with HIV and DM2, diagnosed with HIV 4/2007, on ARVs, takes inconsistently, CD4 294, VL 5717. His partner is a 28 yo G0P0 healthy female, HIV negative.

They have been together for 11 years, they have been using condoms since his diagnosis, and they want a baby.

Which statement best represents your feelings about this couple's desire to have a baby? (Choose one)

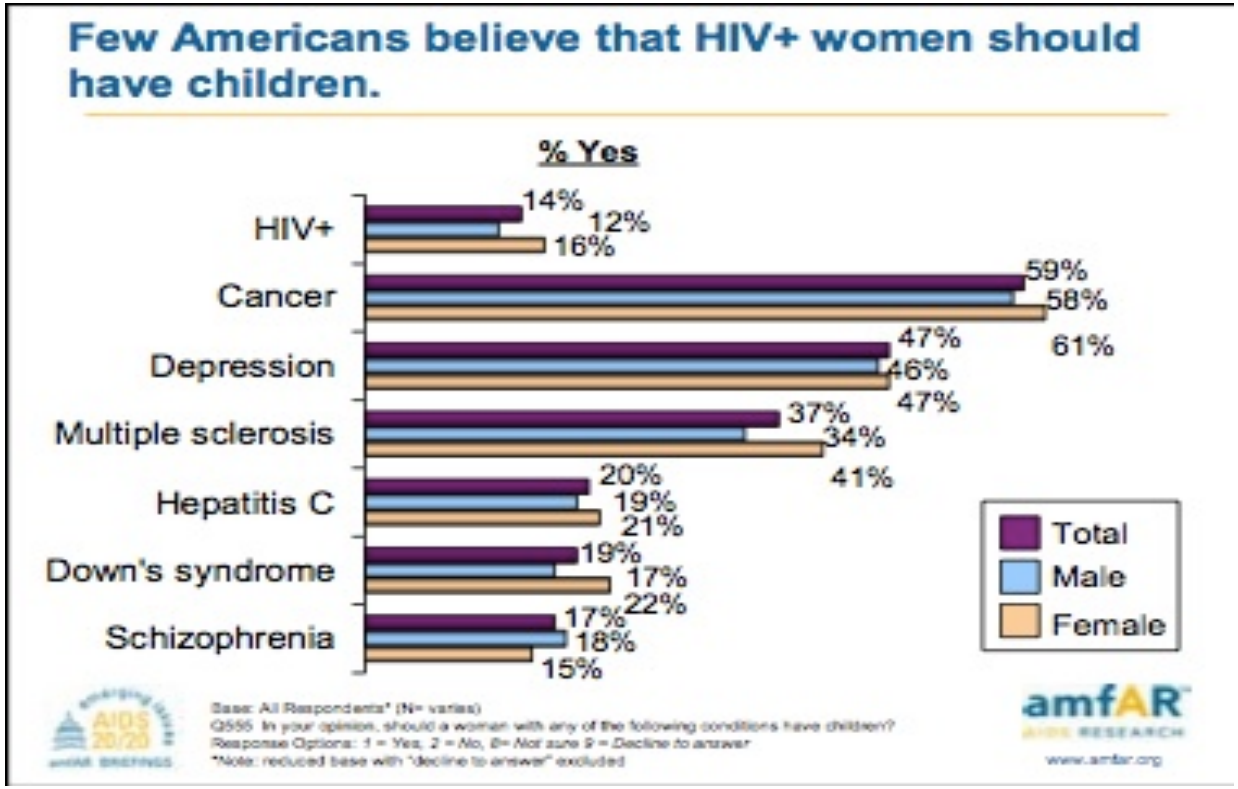
A. I feel angry. How can they take the risk of her becoming infected with HIV and having an HIV+ child?

B. I don't like it, but I think it is their choice

C. I really need to think about it

D. I think I should do everything I can to help them do this safely

Email survey of 4831 US adults



Importance of discussing parenting desires

- Women living with HIV want to talk about their fertility desires, but medical providers aren't asking!
- Many pregnancies among women living with HIV are unintended
- Barriers related to stigma and conception
- Preconception counseling and care not addressed pro-actively
- Reproductive health care often not a priority

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Goals of preconception care in the context of HIV infection

- Prevent unintended pregnancy
- Prevent HIV transmission to partner
- Optimize maternal & paternal health
- Improve maternal and fetal outcomes
- Prevent perinatal HIV transmission

***ACOG Practice Bulletin No. 167; Oct*, 2016**

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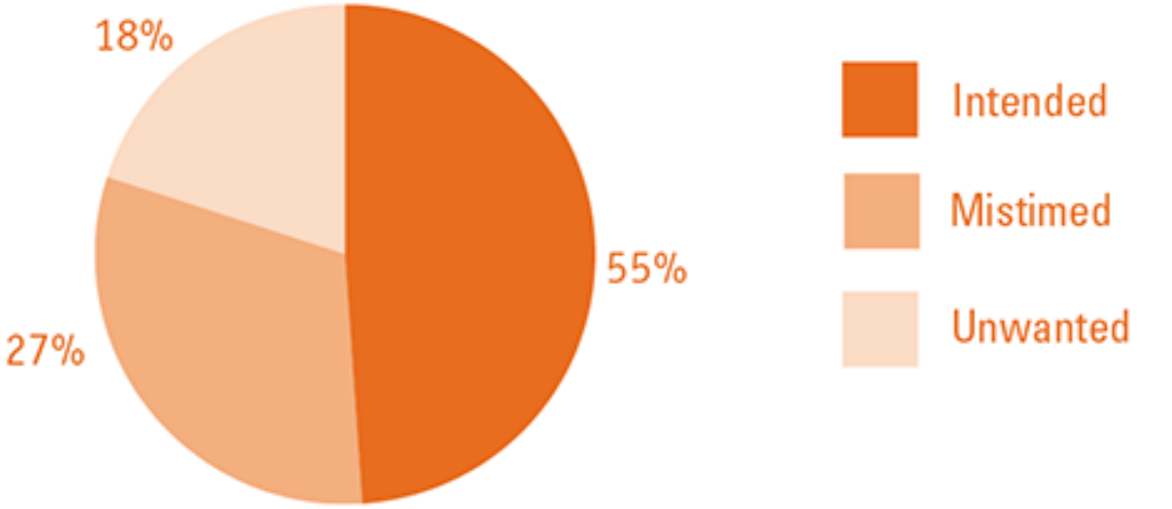
What if your patient doesn't want children now?

CONTRACEPTION

Pregnancies by Intention Status

Nearly half of U.S. pregnancies are unintended.



www.guttmacher.org

Poll #3 (multiple choice)

HIV positive woman has been on Stribild x 3 months with the first repeat and current viral load undetectable and a CD4 cell count of 83. She has an HIV negative male partner. Both admit that they want to have sex without a condom. In addition, the female does not want to become pregnant. The caller wants to know which contraceptive to recommend with Stribild. Since CD4 very low would female pt be at risk for increased infection if an IUD is used?

Which method of contraception would you recommend in this patient? (choose one)

A. IUD
B. Nexplanon
C. Oral contraceptive pills
D. Depo Provera ("the shot")
E. Condoms
F. Any of the above

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Contraceptive counseling

- What method does she want to use?
- What is important to her in choosing a contraceptive method?
- What has she heard from her friends?
- **The most effective form of contraception is the one she will use!**

Most Effective

Less than 1 pregnancy per 100 women in a year

6-12 pregnancies per 100 women in a year

18 or more pregnancies per 100 women in a year

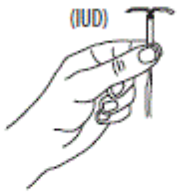
Least Effective

Reversible

Implant

0.05 %

Intrauterine Device (IUD)



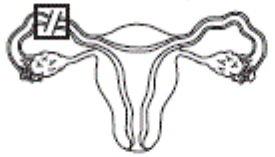
LNG - 0.2 % Copper T - 0.8 %

Permanent

Male Sterilization (Vasectomy)

0.15 %

Female Sterilization (Abdominal, Laparoscopic, Hysteroscopic)

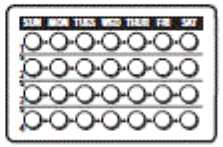


0.5 %

Injectable

6 %

Pill

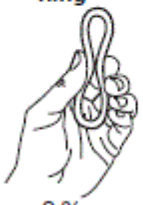


9 %

Patch

9 %

Ring

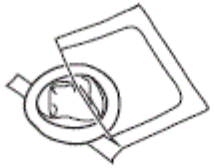


9 %

Diaphragm

12 %

Male Condom

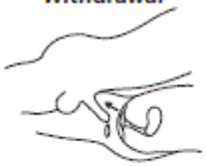


18 %

Female Condom

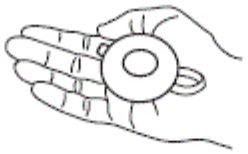
21 %

Withdrawal



22 %

Sponge

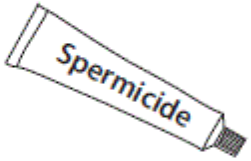


24 % parous women
12 % nulliparous women

Fertility-Awareness Based Methods

24 %

Spermicide



28 %

How to make your method most effective

After procedure, little or nothing to do or remember.

Vasectomy and hysteroscopic sterilization: Use another method for first 3 months.

Injectable: Get repeat injections on time.

Pills: Take a pill each day.

Patch, Ring: Keep in place, change on time.

Diaphragm: Use correctly every time you have sex.

Condoms, sponge, withdrawal, spermicides: Use correctly every time you have sex.

Fertility awareness-based methods: Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be the easiest to use and consequently more effective.

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.

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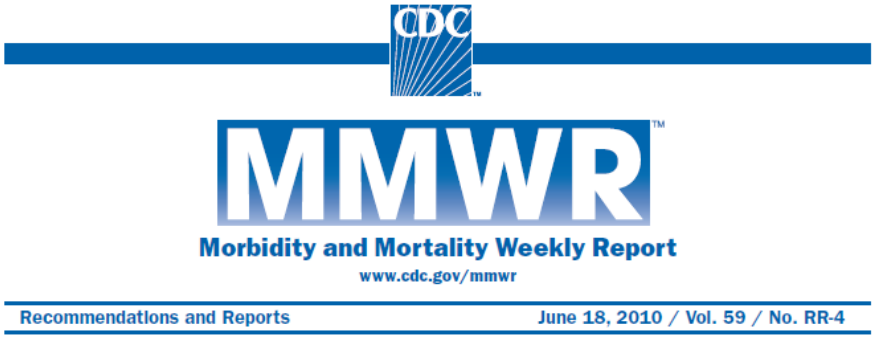
US Medical Eligibility Criteria for Contraceptive Use



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US Medical Eligibility Criteria: Categories

1	No restriction for the use of the contraceptive method for a woman with that medical condition
2	Advantages of using the method generally outweigh the theoretical or proven risks
3	Theoretical or proven risks of the method usually outweigh the advantages – or that there are no other methods that are available or acceptable to the women with that medical condition
4	Unacceptable health risk if the contraceptive method is used by a woman with that medical condition

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HIV and Contraception

Condition	Sub-Condition	Cu-IUD		LNG-IUD		Implant		DMPA		POP		CHC	
		I	C	I	C	I	C	I	C	I	C	I	C
HIV	a) High risk for HIV	2	2	2	2	1		1*		1		1	
	b) HIV infection					1*		1*		1*		1*	
	i) Clinically well receiving ARV therapy	1	1	1	1	If on treatment, see Drug Interactions							
	ii) Not clinically well or not receiving ARV therapy[+]	2	1	2	1	If on treatment, see Drug Interactions							

All ARVs also listed → all are 1s and 2s except fosamprenavir with combined hormonal contraception

Hormonal contraception and ARVs: The bottom line

- The only drug-drug interaction of clinical concern is etonogestrel (nexplanon) and efavirenz
- More reported contraceptive failures but no concern for decreased therapeutic ART efficacy
- Efficacy likely closer to OCP typical use when efavirenz and nexplanon are utilized together.

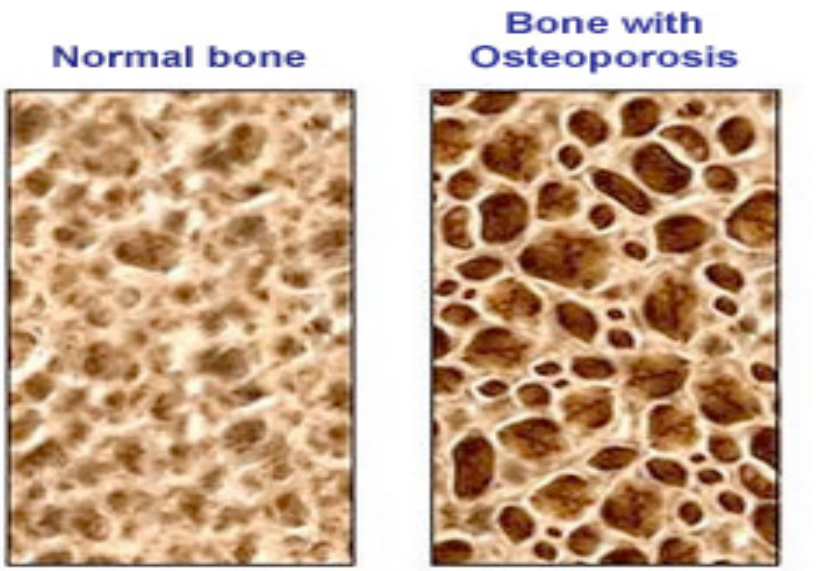
IUDs and HIV

- No evidence of increased HIV transmission or acquisition with IUDs (both copper and LNG)
- No evidence of increased infections even in women with low CD4

Noguchi LS, et al, CROI 2014; Heffron, et al, Lancet, 2012

Depo and BMD

- BMD decreases by 1-2% per year
- 2004 Black Box Warning FDA: limit to 2 yrs. in young women
- No increased in fracture or osteoporosis risk
- BMD recovers after discontinuation
- Teen pregnancy causes more bone loss than teen Depo Provera use



Something to consider in individuals on DMPA AND tenofovir (PrEP or ART)

Meier, J Clin Endocrin Metab, 2010; Scholes *Arch Pediatr Adolesc Med*, 2005.; Scholes, *Epidemiology*, 2002; ACOG 2008 Com Opin 415.

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What if your patient might want children in the future?

PRECONCEPTION

Preconception counseling

- When patient expresses interest in conceiving
- If there is nonuse/inadequate use of effective contraception
- When a change in relationship or personal circumstances occurs

Optimize preconception health

Screen for:

☐Syphilis, HIV, STIs

☐Fertility issues

Refer for:

☐Genetic screening, based on history

☐Contraception, as needed, to delay pregnancy while health issues are addressed

Counsel on avoiding harmful substances (drugs, Etoh, meds)

Provide:

☐Folic acid 400 mcg daily

☐Immunizations, as needed, for:

- ☐Hepatitis B
- ☐Rubella
- ☐Varicella
- ☐Influenza

☐ Assistance with partner disclosure if needed or desired

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Preconception counseling

HIV+ FEMALE

Poll #4 (multiple choice)

39 y/o HIV+ woman virologically suppressed on Triumeq. Last DEPO shot 3 mos ago, now desires pregnancy. Partner's HIV status unknown, doesn't think pt has disclosed to partner. Would like to continue pt on Triumeq given tolerating well, low pill burden, and VL UD. Has been on TRV + DRV/r, but didn't tolerate well, reported vague sxs.

Q: Continue on Triumeq if plan to conceive and during pregnancy? (Choose one)

A. Yes
B. No
C. Discuss with patient

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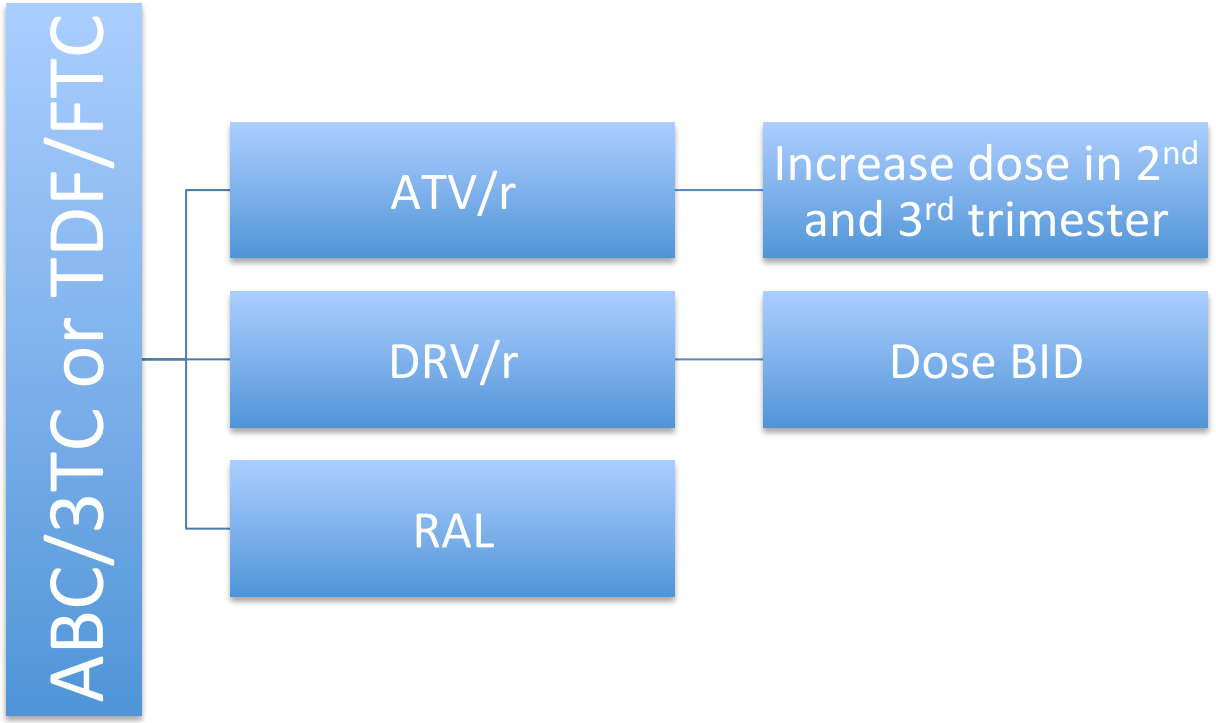
Preferred Regimens in ART-Naïve Pregnant Women



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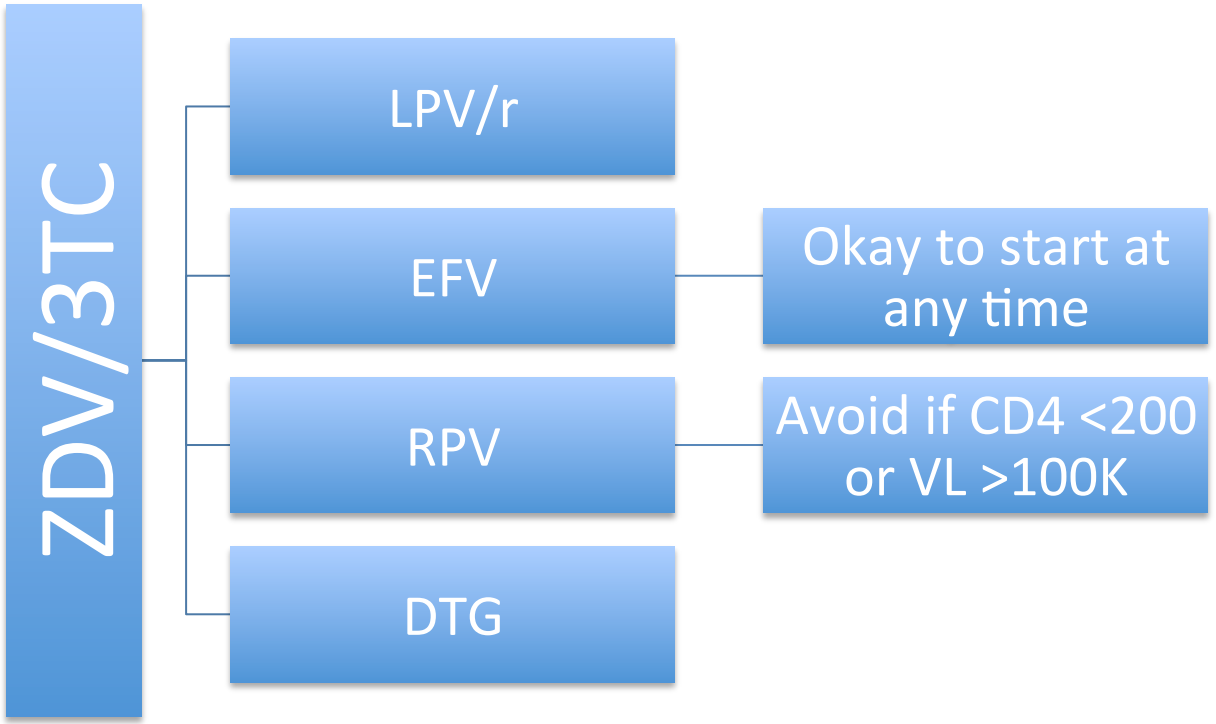
Alternative Regimens in ART-Naïve Pregnant Women



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Insufficient Data to Recommend

TAF

- No data on use of TAF in pregnancy

Not recommended for initial ART

COBI

EVG

- Inadequate levels of both EVG and COBI in 2nd and 3rd trimester, as well as viral breakthroughs, have been reported

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What if she's not a "recommended" regimen?

"In most cases, women who present for obstetric care on fully suppressive ARV regimens should continue their current regimens."

The only drugs that should be stopped due to toxicity: D4T, DDI, and RTV as single PI

Consider changing off EVG/cobi

DHHS Perinatal HIV Guidelines

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Preconception counseling

HIV- FEMALE AT RISK FOR HIV

Poll #6 (Multiple answers)

38 yo G3P3 female with a new male partner for the last year who is HIV+. Couple uses nonlatex condoms. They are coming in for a consultation regarding planning pregnancy.

Q: What are their options for conception? (Choose all that apply)

A. Stop using condoms
B. VL suppression for the HIV+ partner
C. Condomless sex around the time of ovulation
D. PrEP for the HIV- partner
E. Sperm washing
F. Don't forget STI testing!
G. Donor sperm or adoption

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Strategies to reduce periconception risk of HIV transmission for sero-different couples

Couple	Method	Estimated risk reduction
Either partner infected, pursuing sex without condoms for pregnancy + adjunct risk reduction strategies (goal: ↓ sexual transmission)	Sex without condoms limited to peak fertility	Unknown
	ART for the infected partner	96%+
	PrEP for the uninfected partner	75%+
	Post-exposure prophylaxis (PEP) for the uninfected partner	Unknown
	Treatment of STI's	≤40%
F + M- (goal: ↓ female to male transmission)	Manual self insemination	100%
	Medical male circumcision	66%
M + F- (goal: ↓ male to female transmission)	Sperm washing	~100%

Matthews LT et al. Consensus statement: Supporting Safer Conception and Pregnancy For Men And Women Living with and Affected by HIV. AIDS Behav. 2017;1–12.

Combining ART+PrEP: Modeling

Outcome	Optimal				Suboptimal			
	No ART or PrEP	PrEP	ART	ART + PrEP	No ART or PrEP	PrEP	ART	ART + PrEP
Female remains HIV-uninfected and has a child (successful outcome)	26.9	28.2	29.1	29.2	17.8	23.1	26.8	27.3
Female becomes HIV-infected and does not have a child (unsuccessful outcome)	7.1	2.7	0.4	0.1	29.5	13.2	2.1	0.8
Female becomes HIV-infected and has an HIV-uninfected child	2.0	0.8	0.1	<0.1	8.0	3.6	0.6	0.2
Female becomes HIV-infected and has an HIV-infected child	0.4	0.2	<0.1	<0.1	1.7	0.8	0.1	<0.1
Female remains HIV-uninfected but does not have a child	66.3	69.0	70.5	70.6	53.8	64.2	71.2	72.0

****No significant benefit to addition of PrEP for HIV- female to ART for HIV+ male****

Hoffman RM et al. Benefits of PrEP as an Adjunctive Method of HIV Prevention During Attempted Conception Between HIV-uninfected Women and HIV-infected Male Partners. J Infect Dis. 2015;212:1–10.

What is the benefit of PrEP?

- Not all patients with HIV are willing to take ART
- Not all patients are adherent to ART
- Sometimes regimens fail
- PrEP is controlled by the HIV- partner: Psychological benefit?

Best Practice for HIV clinicians?

- Ask about partners and their status
- Ask about reproductive desires
- Open practice to HIV-negative, at-risk adults (testing, prevention counseling, PrEP)
- Ensure linkage to care if unable to provide services on-site

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National Perinatal HIV Hotline

24 hours a day, 7 days a week, 365 days a year
(888) 448-8765

The Clinician Consultation Center (CCC) provides free, confidential, and timely expert perinatal HIV and HIV-exposed infant consultation to clinicians of all experience levels and training backgrounds.

Advice is based on Federal treatment guidelines, current medical literature, and clinical best practices.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1OHA30039-01-00 (AIDS Education and Training Centers National Clinician Consultation Center) awarded to the University of California, San Francisco. (updated 10/24/17)

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The Clinician Consultation Center is a free telephone advice service for clinicians by clinicians. Receive expert clinical advice on HIV, hepatitis C, substance use, PrEP, PEP, and perinatal HIV.

See nccc.ucsf.edu for more information.

HIV/AIDS Warmline
800-933-3413
HIV treatment, ARV decisions, complications, and co-morbidities

Perinatal HIV Hotline 888-448-8765
Pregnant women with HIV or at-risk for HIV & their infants

Hepatitis C Warmline **844-HEP-INFO** **844-437-4636**
HCV testing, staging, monitoring, treatment

PrEPline **855-HIV-PrEP**
Pre-exposure prophylaxis for persons at risk for HIV

Substance Use Warmline 855-300-3595
Substance use evaluation and management

PEPline **888-448-4911**
Occupational & non-occupational exposure management

Meet our Woman and Child Health Team!

Deborah Cohan, MD, MPH

Dr. Deborah Cohan, an OB/GYN, specializes in the care of pregnant women with HIV. She runs the UCSF Perinatal HIV Clinic as part of the Women's HIV Program at UCSF and is medical director of the Bay Area Perinatal AIDS Center (BAPAC) at Zuckerberg San Francisco General Hospital.

Christine Pecci, MD

Dr. Christine Pecci is an Associate Clinical Professor in the Dept. of Family and Community Medicine at UCSF and is a consultant for the Perinatal HIV Hotline. She completed her family medicine residency at Thomas Jefferson University and has done additional training in obstetrics at George Washington University and the University of Rochester. She has a specific interest maternity care.

Lealah Pollock, MD

Dr. Lealah Pollock is the director of the National Perinatal HIV Consultation and Referral Service and an Assistant Professor in the Dept. of Family and Community Medicine at UCSF. She has a particular interest in contraception and pre-conception counseling for women living with HIV.

Pooja Mittal, DO

Dr. Mittal was the Site Director of Maternal and Child Health in the Department of Family and Community Medicine at UCSF. Her interests include Maternal Child Health, Well Child Care, and Quality Improvement in Prenatal Care. Her research interests include Centering Parenting and Preconception Care. She was the Medical Director of the Prenatal Partnership Program. The most important part of her faculty position is being able to mentor students and residents.

PERINATAL TEAM (cont.)

Judy Levison, MD

Dr. Judy Levison is an OB/GYN at Baylor College of Medicine. Since 2002, Dr. Levison has coordinated the Harris Health System Women's Program obstetric and gynecologic care for HIV-positive women. Dr. Levison also educates Texas health care workers about the diagnosis and management of HIV as well as teaching medical students and residents. She currently serves on the Perinatal HIV Guidelines Committee.

Lisa Rahangdale, MD, MPH

Dr. Rahangdale is an associate professor and medical director of the University of North Carolina Women's Hospital Gynecology Clinic and medical director of the University of North Carolina Women's Hospital Dysplasia Clinic in the Department of Obstetrics and Gynecology, University of North Carolina at Chapel Hill.

PEDIATRIC TEAM (cont.)

Peter Havens, MD

Dr. Havens has over 30 years clinical experience treating children, adolescents and young adults with HIV infection. In the early 1990's, Dr. Haven's co-founded the Wisconsin HIV Primary Care Network, established to assure that care and treatment would be available for women and their children with HIV and AIDS throughout Wisconsin. He currently serves as Co-Chair of the Pediatric HIV Guidelines Committee.

Ted Ruel, MD

Dr. Ruel joined the faculty at UCSF in 2009 as an assistant professor of pediatrics in the Division of Infectious Disease and in the Department of Pediatrics at zSFG. He attends on the inpatient consult service and in the outpatient clinic of the Division of Infectious Diseases at the UCSF Benioff Children's Hospital. He also serves as a hospitalist and infectious disease consultant in the Department of Pediatrics at zSFG.

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HIV+ female/HIV- male

CONCEPTION OPTIONS WITHOUT CONDOMLESS SEX

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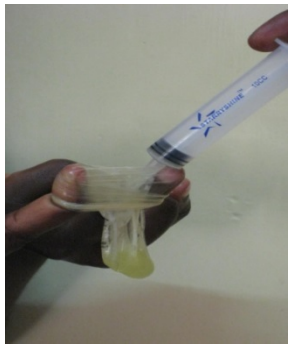
Vaginal Insemination: Zero risk of HIV transmission

#1: Ovulation detection

#2: Semen collected into condom or clean cup

#3: Semen aspirated into needleless syringe

#4: Vaginal insemination by her or partner



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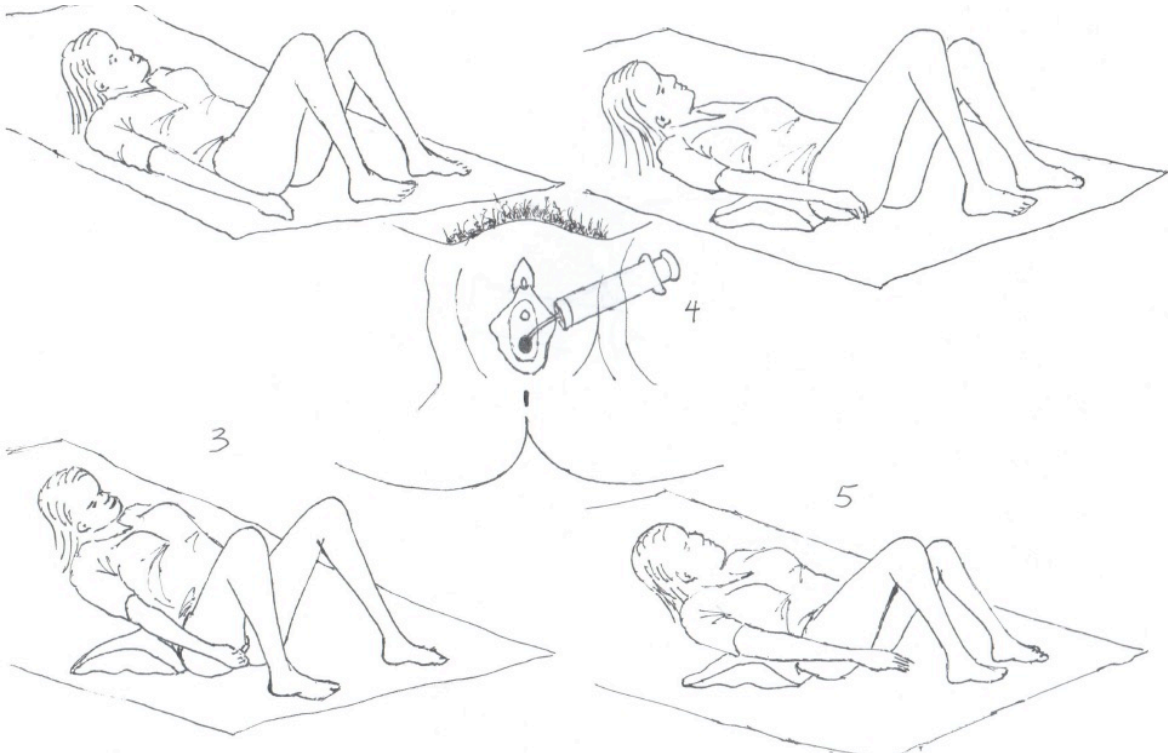
Vaginal Insemination



Ovulation predictor kits

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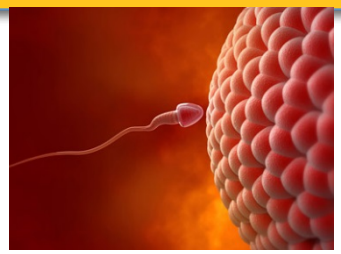
HIV+ male/HIV- female

CONCEPTION OPTIONS WITHOUT CONDOMLESS SEX



Sperm washing

www.getimagefree.com

Components	HIV present?
Spermatozoa	NO
Seminal fluid	possible
Non-sperm cells (wbc)	possible

- Spermatozoa
  - –No CD4, CCR5 and CXCR4 receptors
  - –Electron microscopy suggesting HIV viral particles in sperm not replicated

Baccetti J Cell Biol 1994

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What is done with washed sperm?

- Intrauterine Insemination (IUI)
  - Europe/Israel (CREAThE), South America
  - 7 US clinics willing to offer SW-IUI
- In-vitro fertilization (IVF)
- Intracytoplasmic sperm injection (ICSI)