Overcoming barriers to providing HIV prevention for HIV serodiscordant couples desiring pregnancy

In this issue of *Fertility and Sterility*, Leech et al. (1) present a cross-sectional "secret shopper" study that examines the accessibility of assisted reproductive technologies for HIV serodiscordant couples with pregnancy desires. They found that 63% of fertility clinics approached by investigators offered some assisted reproduction services—most commonly semen washing with intrauterine insemination (IUI), in vitro fertilization (IVF), and IVF with intracytoplasmic sperm injection (ICSI)—in comparison to prior estimates of 3%. Yet responses were caller-dependent, with 63% of clinics offering services if the caller was a physician versus 40% offering services if the caller was a patient in an HIV serodiscordant relationship. Of the clinics that did not offer services, only half referred callers to other clinics they thought could offer them; sites that were frequently out of state. This excellent study provides us with several interesting insights. We would like to expand on the authors' findings, highlighting three important issues related to providing HIV prevention for HIV serodiscordant couples desiring pregnancy.

First, while it is encouraging that an increasing number of fertility centers are providing services to HIV serodiscordant couples, almost one-third of clinics in the Leech et al. (1) study did not offer services to this population despite guidelines from the American Society for Reproductive Medicine and the American College of Obstetrics and Gynecology that support equal access to fertility services for HIV-infected individuals. It is critical that we understand and overcome the barriers (e.g. educational, regulatory, financial, technical, and stigma) to providing these services to HIV serodiscordant couples. Lessons could be gleaned from the many clinics and organizations in the United States and internationally that have found ways to successfully offer fertility services to HIV serodiscordant couples.

Second, while semen washing with IUI/IVF/ICSI is a highly effective strategy for preventing HIV transmission among serodiscordant couples with an HIV-positive male partner (2), HIV serodiscordant couples desiring pregnancy should be counselled on all available HIV prevention options. Several highly effective HIV prevention strategies are available that allow serodiscordant couples to conceive while reducing the risk of HIV transmission to the uninfected partner (3). These strategies include achieving viral suppression in the HIV-infected partner with antiretroviral therapy, use of antiretroviral pre-exposure prophylaxis by the HIV-uninfected partner, and, among serodiscordant couples with an HIV-positive female partner, manual self-insemination timed to the ovulatory period. From contraceptive studies, we know that increased choice is associated with increased uptake—those given a choice exhibit greater continued adherence to their elected contraceptive option than those denied a choice—and ultimately better health outcomes (e.g. lower pregnancy rates and fewer sexually transmitted infections). Offering a variety of effective HIV risk reduction strategies to serodiscordant couples is also likely to increase uptake and preventive benefit as this allows patients and providers to jointly choose a strategy, or combination of strategies, that is/are safe, clinically appropriate, and desirable. For example, suppressive therapy with antiretroviral treatment, while highly effective, is dependent on adherence, the availability of viral load testing, and the ability to achieve an undetectable viral load. Thus, in situations where viral suppression is unknown or not achieved, additional safer conception strategies may be needed to further reduce the risk of HIV transmission. Or, semen washing with IUI/IVF/ICSI may be clinically indicated for those with a history of infertility. Desirability is another factor; there may be hesitation surrounding possible teratogen effects of antiretroviral medications, or patients may have a strong preference for natural conception versus assisted reproduction. Evidence from ongoing research suggests that when a choice of HIV risk reduction services is offered to HIV discordant couples desiring pregnancy, the uptake is high.

Third, critical issues around the successful implementation of HIV risk reduction services for serodiscordant couples including, but not limited to, identifying appropriate facilities in which to offer these services, and education for both providers and patients must be carefully considered with respect to context. Mason et al. (4) discuss the importance of integrated HIV and pre-conception care to encourage successful utilization of HIV risk reduction services for HIV serodiscordant couples desiring pregnancy, i.e. a "full integration of pre-conception counseling, HIV, and family planning services" in a "single healthcare facility or a community venue" (4). Ideally, a patient's primary care facility would screen for fertility desires and problems, and offer family planning and HIV risk reduction counseling and services. In the absence of facilities that offer primary and subspecialty care at the same site—a particular challenge for assisted reproduction interventions, such as semen washing with IUI/IVF/ICSI—there should be an active facilitated referral system between providers to avoid misinformation of patient callers as in Leech et al.'s study (1) and a feedback loop to ensure completion of referrals and receipt of services. A further challenge is that many HIV serodiscordant couples are not aware of their options for reducing risk of HIV transmission while attempting pregnancy, and many providers report they are not trained in providing such services or even counseling patients about them. Fortunately, evidence-based tools are being developed and evaluated for use in a variety of settings to educate providers and counsel HIV serodiscordant couples on available safer conception strategies (5).

In summary, HIV serodiscordant couples face a difficult choice between attempting pregnancy and risking HIV

transmission to their partners. Leech et al.'s study highlights some of the barriers HIV serodiscordant couples encounter in accessing assisted reproductive interventions for HIV prevention. There is an urgent need to understand and overcome barriers to providing comprehensive HIV risk reduction counseling and services to HIV serodiscordant couples. Provision of these strategies will support the reproductive rights of these couples and help decrease HIV transmission between serodiscordant partners, critically contributing to the larger public health goal of eliminating sexual transmission of HIV.

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