A Well-Deserved Update to the Canadian HIV Pregnancy Planning Guidelines

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Ringing in the New Year presents an opportunity to reflect on what 2018 has to bring for our profession and for our patients. Over the past three decades, largely attributable to the introduction of combination antiretroviral therapy (cART), the mortality associated with HIV infection has decreased significantly. Presently, individuals living with HIV in high-income countries, like Canada, have a life expectancy that approaches that of the general population.[1] As a result, health care for individuals living with HIV reaches far beyond achieving virologic control and includes longitudinal management of all aspects of their health and well-being that are affected by HIV and circumstances. Today, most Canadians living with HIV are of reproductive age and they have as strong a desire to have children and start or extend their families as HIV-negative individuals.

As health care providers in 2018 we can reassure women with HIV that they can have a healthy pregnancy and can expect a negligible perinatal HIV transmission risk with the use of cART, Cesarean section when indicated, neonatal prophylaxis, and infant feeding considerations. However, planning a pregnancy in the context of HIV is more complicated and not limited to the prevention of perinatal HIV transmission. We must also consider horizontal HIV transmission (from one partner/parent to the other), the health and wellness of all involved, the potential impact of medications on preconception and pregnancy, and the psychological, ethical and even, legal aspects of HIV and preconception. As such, optimal care for Canadians affected by HIV should include accessible specialized counselling and services intended to help these individuals achieve their desire to start a family. The Canadian HIV Pregnancy Planning Guidelines (CHPPG),[2] first published in 2012, have been revised and are available in this issue of *JOGC*. This update is intended to assist health care providers integrate the most current evidence related to pregnancy planning and counselling for individuals affected by HIV.

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Importantly, a key element of management remains unchanged in this revised guideline: cART remains the backbone of management in both the preconception and antepartum periods for pregnancies affected by HIV. Not only does cART prolong the life of individuals with HIV, but viral suppression nearly eliminates the risk of both horizontal and perinatal HIV transmission. For women living with HIV, delay of initiation of cART until the second trimester is no longer recommended, but rather initiation *before* conception leads to the lowest rate of perinatal transmission of HIV. With very few exceptions, cART is generally safe throughout pregnancy. Both men and women living with HIV should be started on cART as soon as possible in the preconception period to minimize the risk of horizontal transmission during conception.

What has changed in this 2018 revision of the CHPPG is the introduction of condomless sex as a first-line method of safe conception for individuals and couples affected by HIV.[2] Several large studies have shown that there is negligible risk of sexual HIV transmission when the partner with HIV is on cART and has stable virologic suppression.[3–5] A randomized control trial of 1763 participants[3] and a prospective, longitudinal, cohort study that followed about 58 000 condomless sex acts reported no partner infections when

the partner with HIV was on cART and had stable virologic suppression.[4] Given the reassuringly low rate of sexual HIV transmission, condomless sex is suitable in most circumstances when the partner with HIV is adherent to cART with a suppressed viral load. Condomless sex can be *ad lib* or timed with ovulation (timed condomless sex). It is preferable for the condomless sex to be timed with ovulation to maximize the conception success. Certainly, the relative risk of horizontal HIV transmission is dependent on several variables including duration of cART, viral load, and concomitant genital infections. As such, the authors of the CHPPG recommend avoiding condomless sex until the partner with HIV has been on cART for at least 3 months, with a minimum of 2 viral load measurements a month apart below the limit of detection. They also recommend treating genital infections promptly. Moreover, the nature of each individual and couple's case must be evaluated, and condomless sex is not an appropriate means of conception in the context of pre-existing fertility problems.

An important feature of the CHPPG, which has been maintained from the 2012 edition, is that all options for safe conception/insemination are to be reviewed with individuals and couples and that it be left to them to decide which strategy best suits their circumstances. Other options include home insemination, sperm washing followed by intrauterine insemination (IUI), in-vitro fertilization (IVF), intracytoplasmic sperm insemination (ICSI), gamete donation, and adoption. Advantages and disadvantages of each option should be discussed and the strategy chosen should be driven by patient preference in a shared-care decision model.

A topic that continues to be on our radar for 2018 and that is covered in detail in the 2018 CHPPG revision is the use of pre-exposure prophylaxis (PrEP) in the context of pregnancy planning for couples affected by HIV. PrEP has been shown to be efficacious in the prevention of HIV seroconversion in men who have sex with men. The data for use of PrEP for HIV prevention in women are more heterogeneous and the reasons underlying the divergent results between studies continue to be investigated. The CHPPG reviewed two cost-effectiveness studies and found that the addition of PrEP for the female partner was not cost-effective when a male partner had full viral suppression on cART.[2] Taken together, the magnitude of benefit gained from adding PrEP for an HIV-negative individual whose partner is living with HIV and has full viral suppression of cART is unclear. Internationally, guidelines on this topic vary and the authors of CHPPG recommend that while PrEP should be *discussed* with patients during the preconception period, they do not recommended routine use of PrEP in this situation. PrEP is valuable and certainly indicated in situations where the viral suppression for the partner living with HIV cannot be confirmed, but pregnancy is still desired. This scenario is also an indication for ongoing use of PrEP, if condomless sex continues following conception, to avoid potential seroconversion during pregnancy.

Despite the scientific evidence demonstrating that individuals affected by HIV can achieve safe conception and healthy pregnancies, they continue to be discriminated against with respect to pregnancy and parenting. In addition, healthcare providers continue to be a source of the stigma experienced by individuals affected by HIV. It is our obligation to inform ourselves and counsel patients with up-to-date medical information in a supportive and nonjudgmental manner. Further, we must remember our role as advocates for our patients. The CHPPG identified only four provinces where full fertility treatments were provided to individuals living with HIV. With over 75 000 Canadians living with HIV and an increasing proportion of women of reproductive age among them, we must continue to work to overcome the scarcity of preconception counselling and services for these patients.

In many ways, what the 2018 CHPPG presents is a new level of normalization of preconception and pregnancy for individuals and couples affected by HIV. This guideline serves as a good reminder that all the general recommendations for pregnancy planning are of prime importance as well and should not be overshadowed by management related to HIV. Finally, while 2018 presents exciting changes for individuals and couples living with HIV who are planning to start or extend their family, what certainly remains steadfast is the importance of empathic informed discussion and person-centred shared-care decision-making.

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