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HIV and reproductive healthcare in pregnant and postpartum HIV-infected women: adapting successful strategies

Bassam H Rimawi^{1,‡}, Somer L Smith^{2,‡}, Martina L Badell¹, Leilah D Zahedi-Spung¹, Anandi N Sheth³, Lisa Haddad¹, and Rana Chakraborty^{2,*}

¹Division of Maternal Fetal Medicine, Department of Gynecology & Obstetrics, Emory University School of Medicine, 550 Peachtree Street, 8th Floor, Atlanta, GA 30303, USA

²Division of Infectious Diseases, Department of Pediatrics, Emory University School of Medicine, 2015 Uppergate Drive NE, 5th Floor, Atlanta, GA 30322, USA

³Division of Infectious Diseases, Department of Medicine, Emory University School of Medicine, 69 Jesse Hill Jr. Drive SE, Atlanta, GA 30303, USA

Abstract

Linkage and retention in care for many HIV-infected women in the postpartum period is suboptimal, which compromises long-term virologic suppression and the HIV Care Continuum. Efforts are needed to improve individual outcomes by addressing transitions in care. We summarize some successful strategies to engage and retain HIV-infected women in care during the postpartum period.

Keywords

HIV; postpartum engagement; pregnancy; prevention of mother-to-child transmission; reproductive care

Background

Over the past two decades, the rate of perinatal HIV-1 transmission has decreased to less than 1% in many parts of the USA and Europe [1]. Perinatal guidelines have been developed to optimize maternal treatment with combination antiretroviral therapy (cART), to minimize the risk of perinatal HIV transmission [2]. Unfortunately, during the postpartum period, many HIV-infected women are not retained in care and experience virologic rebound [3–5]. The HIV Care Continuum was established to include postpartum women in achieving viral

* Author for correspondence: rchakr5@emory.edu.

‡ Authors contributed equally

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suppression that involves linkage and consistent retention of all HIV-infected individuals in medical care with adherence to cART [6,7].

HIV infection during pregnancy

Establishing a diagnosis of HIV early in or before pregnancy, with prompt initiation of cART to achieve virologic suppression is critical for optimal reduction in perinatal transmission [1,8]. Treatment of HIV-infected women with appropriate cART to achieve undetectable or low HIV-1 RNA viral loads antenatally together with avoidance of breastfeeding in the postpartum period can reduce perinatal HIV transmission to less than 1% [9]. However, approximately 13% of pregnant women who initiate cART antenatally have detectable viral loads at the time of delivery [10]. Clinically important risk factors associated with a lack of viral suppression at the time of delivery include black race, low socioeconomic status, late initiation of cART during pregnancy, long-standing HIV disease and late initiation of prenatal care [10].

In the USA and Europe, intrapartum intravenous zidovudine therapy is recommended for pregnant women with an HIV-1 viral load of >1000 copies/ml near the time of delivery together with a scheduled cesarean section [11]. Additionally, breastfeeding is not recommended given access to safe formula [12]. After delivery, establishment and maintenance of HIV care is critical to maternal health, prevention of HIV transmission to partners and prevention of perinatal transmission during subsequent pregnancies [13]. Referral to an infectious disease specialist is strongly recommended. Counseling women on the benefits of uninterrupted cART, irrespective of CD4 count, as recommended by guidelines both nationally and internationally, is very important as adherence to cART and HIV care visits is often more challenging postpartum [14]. Guidelines globally include Option B+ from the WHO, where the goal is to initiate and continue effective antiretroviral therapy for life, in pregnant and breastfeeding women [15,16].

Postpartum strategies to achieve successful engagement into HIV care

A report from a single center in the USA suggests that only 38% of postpartum women engage in HIV care beyond the first 3 months following delivery. A history of a prior pregnancy with HIV infection is associated with better compliance with retention in care. Women who were engaged in HIV care early after delivery, particularly within the first 90 days postpartum, were more likely to remain in care and virally suppressed at 1 and 2 years, compared with those who were not engaged early after delivery [13], suggesting that interventions focusing on early engagement in care during the immediate postpartum period may help with long-term retention and viral suppression. Only a third of women remained virally suppressed at 1 and 2 years postpartum, demonstrating a significant shortfall in the HIV Care Continuum among reproductive age women in the USA [7,17].

Poor retention significantly compromises opportunities for family planning interventions to prevent unintended pregnancy and optimize the interpregnancy interval [18]. A four-prong strategy has been proposed by the WHO to diagnose and eliminate any new HIV infections among children, as well as to keep their mothers alive [19]. Prong 2 specifically

recommends counseling for women living with HIV on contraceptive options, as well as understanding their desires for future fertility and prevention of unintended pregnancies [19,20].

Maintaining ongoing virologic suppression is associated with improved maternal health, which can positively impact the health of the newborn and other children in the family [18]. Barriers to postpartum care engagement include issues with transportation, work responsibilities, childcare concerns, stigma of HIV and the patients' limited knowledge of the benefits associated with compliance with their cART [21]. Important facilitators that can promote postpartum engagement include having a strong social support and relationship between patients' and their healthcare providers. This can be improved by providing appointment reminders and close follow-up visits (including home visits by healthcare providers) [21]. Achieving postpartum HIV engagement and viral suppression involves a seamless transition of women postnatally into HIV care facilities [3,19]. Ongoing engagement ensures optimal outcomes in future pregnancies, as many women have delays in initiating treatment during subsequent pregnancy. Effective communication with a team of providers antenatally should include consultations with a perinatologist and an infectious disease specialist, and involvement of case managers and social workers. Mental health specialists should also be engaged early if psychosocial stressors are identified during pregnancy. Involvement with a multi-disciplinary team during pregnancy is more likely to facilitate postpartum care engagement [19].

Infant follow-up visits with a pediatric infectious disease provider also presents an opportunity to inquire and assist with maternal health and follow-up in HIV care and mental health services [22]. Integrated follow-up visits for the infant and the mother in same-site pediatric and women's clinics provide another window to achieve successful engagement and retention in care for both mother and infant if available [22].

Mental health disparities in HIV-positive pregnant & postpartum women

Untreated depression in HIV-positive women is associated with nonadherence to cART, multiple hospital visits and a decreased lifespan [23]. The diagnosis of HIV in a pregnant woman has been associated with the development of depression. These patients may initially feel shocked, as many of their fears revolve around their ability to cope with this new diagnosis, a direct psychological stressor that may further complicate pre-existing depression [24]. HIV-infected women also face high rates of trauma and intimate-partner violence, contributing to increased risk of post-traumatic stress disorder, depression and anxiety [24].

The high rate of HIV-positive women with postpartum depression suggests a need to screen for depressive symptoms in all HIV-positive postpartum women [25]. Managing depression in patients with HIV resulted in greater rise in CD4 count and viral suppression, which may be due to the increased utilization of cART [26]. Postpartum depression screening improves recognition of the disorder, but improvement in clinical outcomes requires enhanced care that ensures adequate treatment and follow-up [25]. Routine screening of depressive symptoms should be performed in all HIV-positive post-partum mothers. Treatment of

depression can lead to improvement in self-care behaviors, medication adherence and HIV-related outcomes, all of which could lead to a better quality of life for the patient [25].

Discussion

Pregnancy for HIV-infected women should be the starting point to adapt successful postpartum engagement. Consultation with an infectious disease medical provider during pregnancy is encouraged, as this will help build a stronger patient–medical provider relationship during pregnancy, and is more likely to result with postpartum HIV care retention [19]. Close follow-up visits during the early postpartum period are more likely to achieve retention of HIV care [21]. Counseling should focus on the morbidity and mortality associated with untreated HIV infection. A team of medical providers, case managers, social workers and any other support network should be available to assist postpartum HIV-infected women that may face competing priorities with finances, psychosocial stressors and childcare [19].

Conclusion & future perspective

Despite high levels of care engagement during pregnancy, many HIV-infected women do not have consistent postpartum care engagement, thereby limiting optimal HIV, reproductive health and mental healthcare and compromising infant care. With the limited number of available published reports addressing HIV outcomes among postpartum women, both nationally and globally, strategies are urgently needed to engage and retain HIV-infected women in care during the postpartum period. In addition, the postpartum period provides an opportunity to discuss prevention of HIV transmission to uninfected partners and future unintended pregnancies by addressing fertility desires, contraceptive counseling and preventive strategies such as consistent condom use, treatment as prevention and pre-exposure prophylaxis.

Due to high rates of intimate partner violence, post-traumatic stress disorder and postpartum depression, postpartum HIV care visits also serve a critical role in addressing mental health treatment needs and providing linkage to intimate partner violence services. Finally, coordination of pediatric and women's HIV care visits may reduce barriers to adequate maternal and infant retention in care. Interventions to optimize comprehensive care for HIV-infected pregnant women during the prenatal and postnatal periods should be urgently designed, implemented and evaluated.

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EXECUTIVE SUMMARY

- Establishing a diagnosis of HIV early in or before pregnancy, with prompt initiation of combination antiretroviral therapy (cART) to achieve virologic suppression is critical for optimal reduction in perinatal transmission to less than 1%.
- Important risk factors associated with a lack of viral suppression at the time of delivery include black race, low socioeconomic status, late initiation of cART during pregnancy, long-standing HIV disease and late prenatal care.
- The HIV Care Continuum, consisting of HIV testing and diagnosis, linkage and consistent retention of all HIV-infected individuals in medical care and adherence to cART with viral suppression, is a critical for reproductive aged women in order to preserve women's health and prevent perinatal transmission.
- Guidelines globally including Option B+ from the WHO emphasize achieving the combined outcomes of maternal virologic suppression as part of maternal health antenatally, as well as prevention of perinatal maternal-to-child transmission of HIV, and the overall goal for women to continue cART after pregnancy for life.
- Counseling postpartum HIV-infected women about contraceptive options, as well as understanding their desires for future fertility and prevention of unintended pregnancies, is important for the prevention of MTCT of HIV.
- Untreated depression in HIV-positive women is associated with nonadherence to cART, frequent hospitalizations and decreased survival. Postpartum depression screening improves recognition of the disorder. Treatment of depression can lead to improvement in self-care behaviors, medication adherence and HIV-related outcomes.
- Barriers to postpartum care engagement include issues with transportation, the patients' limited knowledge with the benefits associated with compliance with cART, stigma of having HIV infection, as well as having significant childcare or work responsibilities.
- Having strong social support and relationship with the healthcare provide can promote postpartum care engagement. Close follow-up visits (including home visits) and appointment reminders can contribute to successful postpartum care engagement.