

# Postnatal contraceptive choices among women living with HIV: a decade of experience in a community-based integrated sexual health clinic

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## ABSTRACT

**Background** Establishing effective postnatal contraception is essential for HIV-seropositive women to avoid the risk of unwanted pregnancy and minimise HIV transmission to HIV-seronegative partners. The authors describe their experience of providing postnatal contraception to HIV-seropositive women who attend a community-based integrated sexual health clinic.

**Methods** The authors performed a retrospective case note review of all women who received care for HIV in pregnancy to term at their clinic from September 2000 to October 2010.

**Results** A total of 107 pregnancies among 95 women were eligible for review. Attendance for contraceptive advice within 4 weeks of delivery occurred in 82/107 (77%) pregnancies. Depo-Provera® was prescribed in 21 (21/82, 26%) cases; an intrauterine contraceptive was arranged in 22/82 (27%) cases and sterilisation had occurred as part of a Caesarean delivery in 10/82 (12%) cases. In seven women who discontinued antiretroviral therapy at delivery one subdermal implant was fitted and the combined contraceptive pill was prescribed six times. In 17/82 (21%) cases women opted to use condoms alone. Attendance for postpartum contraceptive advice was missed following 21/107 (20%) pregnancies.

**Conclusions** Uptake of a second contraceptive method in addition to condoms is high among women who attend clinic for contraceptive advice in the immediate postnatal period. However, 20% of women did not attend and their contraceptive choices remain unknown. These women are at risk of unwanted pregnancy and transmission of HIV to seronegative partners if appropriate contraceptive methods are not established postpartum.

## Key message points

- ▶ HIV-seropositive women living in the UK should be offered an early opportunity to establish effective contraception as reliance on natural methods is inappropriate.
- ▶ Uptake of injectable methods and intrauterine devices is high.
- ▶ Women who do not attend for postnatal contraceptive advice are at risk of unwanted pregnancy, which may be associated with an increased risk of adverse perinatal outcomes if the inter-pregnancy interval is less than 6 months.
- ▶ Continued condom use is recommended to minimise HIV transmission to HIV-seronegative partners.

## BACKGROUND

The postnatal period is a vulnerable time for any woman. Beyond adjusting to the physiology of the puerperium; bonding and establishing appropriate infant nutrition, women must acclimatise to the changes in their social and financial circumstances that are often associated with the arrival of a new baby.<sup>1</sup> Yet the postnatal needs of women living with HIV are even more complex: decisions must be made about the need to continue the mothers' own antiretroviral therapy (ART) depending on her CD4 count; ART must be administered to the baby; breastfeeding should be avoided in the UK and the infant requires regular HIV testing until 18 months of age.<sup>2</sup> Issues of confidentiality and disclosure are often an additional source of anxiety, as minimising the risk of mother-to-child-transmission may require the avoidance of traditional practices regarded as cultural norms by relatives and friends.<sup>3</sup>

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In the face of these demands, the importance of establishing appropriate postnatal contraception must not be missed. Due consideration must be paid to the need to protect HIV-seronegative partners and prevent the transmission of drug-resistant virus between sero-concordant couples, and the need to provide optimal protection against unwanted pregnancy. Women in the postnatal period are by definition fertile, and given that women living with HIV in the UK are advised to avoid breastfeeding, reliance on natural methods of contraception is inappropriate.

The authors' clinic offers an integrated approach to sexual health in a community-based setting provided by a multidisciplinary team. 'One-stop' appointments offer women combined care designed to meet HIV, sexual health and family planning needs. This service is the only HIV health care provider in the local community and the main provider of complex contraception. Specifically, the clinic offers prenatal, antenatal and postnatal care to women living with HIV. Historically, the authors aimed to review all HIV-seropositive pregnant women at 2 weeks postpartum to assess the development of antiretroviral resistance if therapy had been stopped at delivery, and to ensure that breastfeeding did not occur. However, the importance of clinical review in the immediate postpartum period has evolved, and since 2000 the 2-week postpartum appointment has been used as an opportunity to address postpartum contraception. This article presents the authors' experience of prescribing postnatal contraception to HIV-seropositive women over a 10-year period.

## METHODS

The authors conducted a retrospective case note review of all HIV seropositive women who received care for HIV in pregnancy to term at their clinic from September 2000 to October 2010. A total of 121 pregnancies were documented. Fourteen cases were excluded from further analysis because incomplete information was available, which was most often associated with the transfer of care to another HIV clinic. Women who did not attend the initial appointment at 2 weeks postpartum but who subsequently attended within 4 weeks of delivery are discussed as having attended in the immediate postnatal period. Data analysis and descriptive statistics were prepared using STATA version 11.0 (StataCorp, College Station, TX, USA). Unadjusted odds ratios (ORs) were used to investigate the relationship between non-attendance for care by 4 weeks postpartum (outcome) and individual explanatory factors.

## RESULTS

One hundred and seven pregnancies among 95 women were eligible for review. Ten women received care for HIV in pregnancy on two occasions and one woman received care three times. The mean age at the

time of pregnancy was 30.2 years [95% confidence interval (CI) 29.1–31.2 years] and 86/95 (90%) women were of black African ethnicity. A total of 64/95 (67%) women were diagnosed through routine antenatal screening and first presentation to the author's clinic occurred at a mean of 18.2 weeks' gestation (95% CI 16.7–19.8 weeks).

Mean gestation at delivery was 37.2 weeks (95% CI 36.6–37.8 weeks) and in 86/107 (80%) pregnancies women attended for postnatal review within 4 weeks of delivery. In these pregnancies, discussion of appropriate postnatal contraception was documented in 95% (82/86) of cases and the method of contraception prescribed is illustrated in Table 1. The overall uptake was high, with women opting to use a second method in addition to continuing condom use following 60/82 (73%) pregnancies. Depo-Provera<sup>®</sup> was prescribed in 21 (21/82, 26%) cases; arrangements were made to fit an intrauterine contraceptive in 22/82 (27%) cases; sterilisation had occurred as part of a Caesarean delivery in 10/82 (12%) cases and the combined contraceptive pill was prescribed following six pregnancies where the woman no longer required ART. One subdermal implant was fitted in 2005 in another woman who had also discontinued ART at delivery. Following 17/82 (21%) pregnancies women opted to use condoms alone. All women were provided with advice on the use of hormonal emergency contraception, with particular attention paid to the need for a double dose in women continuing ART.

Importantly, in 21/107 (20%) pregnancies the woman did not attend for review in the immediate postnatal period thus the opportunity for advice on future contraception was missed. Non-attendance was not associated with having received care for HIV in pregnancy previously (unadjusted OR 0.5,  $p=0.27$ ); the timing of HIV diagnosis (unadjusted OR diagnosis pre-pregnancy vs antenatal diagnosis 0.4,  $p=0.53$ ); having conceived while on ART (unadjusted OR 1.7,  $p=0.50$ ); the reason ART was commenced (unadjusted OR requiring ART for the woman's own health vs prevention of mother-to-child-transmission only 1.4,  $p=0.63$ ); mode of delivery (unadjusted OR caesarean vs vaginal delivery 0.95,  $p=0.94$ ) or the sero-status of her regular male partner (unadjusted OR 0.83,

**Table 1** Method of contraception prescribed to study cohort ( $n=82$ ) at the 4-week postnatal review

| Contraceptive method                  | Women [ $n$ (%)] |
|---------------------------------------|------------------|
| Depo-Provera <sup>®</sup> + condoms   | 21 (26)          |
| Intrauterine device + condoms         | 22 (27)          |
| Sterilisation + condoms               | 10 (12)          |
| Combined contraceptive pill + condoms | 6 (7)            |
| Implant + condoms                     | 1 (2)            |
| Condoms alone                         | 17 (21)          |
| Patient undecided                     | 5 (6)            |

$p=0.79$ ). In 11/21 (50%) of these pregnancies women had regular male partners who were either HIV-seronegative or of unknown HIV status, which poses a significant risk of HIV transmission in addition to unwanted pregnancy if barrier contraceptive methods are not used.

## DISCUSSION

Multiple complex demands are placed on a woman living with HIV in the immediate postnatal period. Continued condom use is recommended to all HIV-seropositive women regardless of the HIV serostatus of their partner. However, the choice of an additional method of contraception depends on the need to continue ART. Traditionally, only Depo-Provera or an intrauterine contraceptive method [either the copper intrauterine device (IUD) or the Mirena® intrauterine system] have been considered appropriate choices among women who continue antiretroviral treatment after delivery: increased failure rates of oral contraceptives (both the combined and progestogen-only pills) and subdermal progestogen-only implants have been reported when these drugs are prescribed concurrently with ART.<sup>4-5</sup> However, some preliminary data suggest that newer antiretroviral drugs such as boosted atazanavir and maraviroc may be co-administered with a combined contraceptive pill that contains at least 30 µg ethinylestradiol without significant interaction, increasing the contraceptive choices of HIV-seropositive women.<sup>6-7</sup>

While the time from delivery to the resumption of sexual activity is reported to vary widely,<sup>8</sup> the importance of providing women with an early opportunity to establish appropriate contraception should not be overlooked. Indeed, the association of an increased risk of adverse perinatal outcomes with an interpregnancy interval of less than 6 months is well documented.<sup>9</sup> Women attended for postnatal review by 4 weeks postpartum in 80% of pregnancies but, in this non-breastfeeding population, ovulation may have already occurred in those seen beyond 2 weeks postpartum. Nonetheless, the present results suggest that the uptake of a second contraceptive method in addition to condom use is high, and that prescription of contraception in the context of a specialist HIV service can ensure that drug interactions are minimised to offer all women an individual approach to the most appropriate and effective method.

Yet this study also highlights the vulnerability of the women who did not attend for clinical review and contraceptive advice in the immediate postnatal period. The potential reasons for non-attendance are many, and require further qualitative investigation. Local anecdotal evidence suggests that reasons include logistical difficulties with transport and child care, fear of disclosure to visiting family and friends, and simply being too busy to remember to attend. However, non-attendance may also signal more serious issues such as

postnatal depression and difficulty in adjusting to a new HIV diagnosis.<sup>10</sup> The present data did not allow the authors to identify factors associated with non-attendance; also the analysis is limited by small sample size and retrospective design.

These data have several other limitations. In spite of prescribers' guidelines and the advice given at the authors' clinic, women' contraceptive choices in the postnatal period will be confounded by their experience of the methods used pre-pregnancy, and previous advice given by alternative health care providers and community members, which it was not possible to address in the present analysis. No assessment was made as to whether women sought postnatal contraceptive advice from an alternative clinic or health care provider such as their general practitioner, which may account for some women's non-attendance. Importantly, in looking at explanatory factors associated with non-attendance, individual unadjusted ORs are presented that do not account for other known and unknown confounding factors. Furthermore, as a retrospective analysis of cohort data, no assumptions can be made about the power of the study to detect such associations, nor about the degree to which these results are transferable to other settings and populations.

However, the authors are not aware of similar studies in HIV-seropositive women living in the UK. The Ukraine Post Natal Cohort Study of HIV-Infection Childbearing Women was established in 2007.<sup>11</sup> Data reported in 2010 among the cohort of 371 women estimated that 21% of this group were not using contraception in the postnatal period, which is similar to the present population group. Despite similar levels of postnatal family planning counselling (91%), the reported use of methods other than condoms was significantly lower, with 0.6% of women using an injectable method and 0.9% of women using an IUD. One of the major barriers cited for contraceptive use was affordability, which is obviated by the availability of free contraception in the UK. Differences in the uptake of non-barrier methods may also reflect differences in the experience, beliefs and cultural norms of both women and their health care providers in the two countries.<sup>12</sup> The World Health Organization does not currently recommend the use of IUDs among women diagnosed with AIDS due to concerns of increased risk of pelvic infection.<sup>13</sup> However, IUDs are commonly inserted for HIV-seropositive women in the UK, and Faculty of Sexual and Reproductive Healthcare guidance states that the benefits of intrauterine methods outweigh these risks, such that there is no restriction associated with a diagnosis of HIV in itself.<sup>14</sup>

## CONCLUSIONS

Uptake of postnatal contraception among HIV-seropositive women who attend the authors' community-based integrated clinic is high, and contraceptive prescription in conjunction with an HIV

specialist service can ensure that each woman is offered the most appropriate method. However, the postnatal contraceptive choices of one-fifth of the present cohort remain unknown. Reasons why women do not attend for postnatal clinical review and contraceptive advice should be further evaluated to identify factors associated with non-attendance such that the risks of unwanted pregnancy and HIV transmission can be minimised.

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