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prepared by the Bordeaux Working Group *

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Subject Headings/Subheadings

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Gynaecology
Infant feeding/Breastfeeding
MTCT (Mother-to-Child Transmission)
Obstetrics
PMTCT/ARV (Prevention of Mother-to-Child Transmission/AntiRetroVirals)
Primary prevention of sexual transmission/VCT (Voluntary Counselling and Testing)
Termination of pregnancy/Abortion

Citation format (by alphabetical order of the authors)
Author(s). Title. Source.
Abstr. (authors’ abstract) or Notes (prepared by the Bordeaux Working Group)
Author address, if available (for reprints)
Subject Headings

Abstr. Guided by the conceptual framework of the Health Belief Model, this study aimed to identify factors associated with pregnant women's expressed willingness to accept voluntary counselling and HIV-testing (VCT). A cross-sectional interview survey of 500 pregnant women, complemented by focus group discussions, was conducted in the Kilimanjaro region of Tanzania. Constructs derived from the Health Belief Model explained 41.7% of women's willingness to accept VCT. Perceived high personal susceptibility to HIV/AIDS, barriers related to confidentiality and partner involvement, self-efficacy regarding alternative feeding methods and religion were all shown to be associated with willingness to accept VCT. The women's acceptance of VCT seems to depend upon their perceiving that VCT and alternative feeding strategies provide clear benefits, primarily for the child. Whether a positive attitude to VCT and alternative feeding strategies are transformed into actual behaviour depends on a set of complicated decisions in which several potential psychological consequences are assessed. Sharing the diagnosis with partners may not have the intended effect if there is a lack of sensitivity to the women's fear of blame and rejection. If pregnant women are to fully participate in and benefit from mother-to-child-transmission prevention efforts, their partners must be committed and involved in the process.

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Primary prevention of sexual transmission/VCT


Abstr. We surveyed infant feeding knowledge, attitudes, and practices in Zimbabwe to determine whether knowledge of HIV seropositivity influences infant feeding behavior. Questionnaires were administered to 97 women 1 and 4 weeks postpartum and prospective data on infant feeding practices were collected. Participants were pregnant women who consented to a HIV test. A total of 116 women participated of whom 99 women underwent voluntary HIV counseling and testing (VCT); 17 women agreed to blinded HIV testing but did not opt for VCT. The responses to questionnaires on infant feeding practices of HIV-positive and HIV-negative women who knew and did not know their HIV status at day 1 and week 4 postpartum were compared. We found that HIV-positive women who did not learn their status breastfed their infants less, introduced supplementary foods sooner, and planned to wean their babies earlier compared to other women (p = 0.005, p = NS, p= 0.02). HIV-positive women (30/97) more frequently reported a prior history of infant death and AIDS-related symptoms compared to HIV-negative women. We conclude that HIV-positive women who did not know their status made incorrect decisions with respect to infant feeding. These women may have suspected themselves to be HIV-positive and consequently underfed their infants or because these women were more symptomatic may have been less likely to breastfeed; decreased intake may increase the risk for malnutrition. Knowledge of HIV status may influence infant feeding decisions and reveal an urgent need to address infant feeding practices of pregnant women in Zimbabwe.

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Infant feeding/Breastfeeding


Abstr. Objective: To evaluate the relationship between hormonal contraceptive use and the acquisition of cervical sexually transmitted infections (STI) among HIV-1-infected women. Design: A prospective cohort study of 242 commercial sex workers in Mombasa, Kenya, followed from the time of HIV-1 infection. Methods: At monthly follow-up visits, sexual behavior and contraceptive use were recorded, and laboratory screening for STI was performed. Multivariate Andersen-Gill proportional hazards models were constructed to examine the association between the use of hormonal contraception and the occurrence of cervical STI. Results: The median duration of follow-up after HIV-1 acquisition was 35 months, and 799 person-years of follow-up were accrued. After adjustment for demographic factors and sexual behavior, women using the injectable contraceptive depot medroxyprogesterone acetate were at increased risk of Chlamydia trachomatis infection [hazard ratio (HR) 3.1, 95% confidence interval (CI) 1.0-9.4, P = 0.05] and cervicitis (HR 1.6, 95% CI 1.0-2.3, P = 0.03) compared with women using no contraception. The use of oral contraceptive pills was associated with an increased risk of cervicitis (HR 2.3, 95% CI 1.4-3.8, P = 0.001). Hormonal contraception was not associated with an increased risk of infection with Neisseria gonorrhoeae. Conclusion: The use of hormonal contraception by HIV-1-infected women was associated with an increased risk of cervicitis and cervical chlamydia infection. HIV-1 seropositive women using hormonal
contraception should be counseled about the importance of consistent condom use to prevent both STI and HIV-1 transmission. (C) 2004 Lippincott Williams Wilkins.

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**Contraception, Primary prevention of sexual transmission**


URL: [http://www2.niaid.nih.gov/Newsroom/Releases/HIVNET012.htm](http://www2.niaid.nih.gov/Newsroom/Releases/HIVNET012.htm)

**PMTCT/ARV**


**Abstr.** Objective. Exposure to nucleoside analogues in fetal or early life has been associated with rare clinically significant mitochondrial toxic effects, mainly neurologic symptoms. Lactate (LA) measurements have been used to monitor nucleoside-related mitochondrial toxicity. Our aim was to determine the prevalence, clinical evolution, and risk factors for hyperlactatemia in our cohort of human immunodeficiency virus (HIV)-uninfected children who were exposed to antiretrovirals. Methods. We conducted a prospective observational study of 127 HIV-uninfected infants who were born to HIV-infected women. Clinical symptoms suggesting mitochondrial dysfunction were analyzed in routine follow-up, and LA and alanine plasma levels were obtained at 6 weeks, 3 months, 6 months, and 12 months in all patients. Elevated alanine levels, together with hyperlactatemia, suggest chronic mitochondrial injury. Results. Most (85%) women received highly active antiretroviral therapy (HAART) during pregnancy (mean duration: 31 weeks) and zidovudine during labor (93%). Most (96%) children received zidovudine alone. Hyperlactatemia with hyperalaninemia was detected in 63 children in at least 1 of the measurements. Mean LA levels were significantly higher in children who were exposed to nucleoside analogue reverse transcriptase inhibitors than in control subjects (2.88 vs 1.61 at 6 weeks, 2.78 vs 1.49 at 3 months, 1.89 vs 1.39 at 6 months, and 1.71 vs 1.24 at 12 months; peak levels: 8.06, 10.1, 7.28, and 4.48 mmol/L, respectively). In 44 patients, LA levels progressed spontaneously to normality within the first year of life. Three girls presented a slight and self-limited delay in psychomotor development, with LA peak levels of 7.3, 4.0, and 4.6 mmol/L. Only the gestational use of didanosine was associated with a higher risk of hyperlactatemia. Conclusions. In our series, almost half of the children (63 of 127) who were exposed to nucleoside analogues developed benign and self-limited hyperlactatemia. When symptomatic, nucleoside analogue-induced toxicity affected neurologic development.

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**PMTCT/ARV**


**Abstr.** Problem. Zimbabwe has one of the highest rates of HIV seroprevalence in the world. In 2001 only 4% of women and children in need of services for prevention of mother to child transmission of HIV were receiving them. Design Pilot implementation of the first programme for prevention of mother to child transmission of HIV in rural Zimbabwe. Setting. 120 bed district hospital in Buhera district (285 000 inhabitants), Manicaland, Zimbabwe. Key measures for improvement Programme uptake indicators monitored for 18 months; impact of policy evaluated by assessing up-scaling of programme. Strategies for change Voluntary counselling and testing services for HIV were provided in the hospital antenatal clinic. Women identified as HIV positive and informed of their serostatus and their newborn were offered a single dose antiretroviral treatment of nevirapine; mother-child pairs were followed up through routine health services. Nursing staff and social workers were trained, and community mobilisation was conducted. Effects of change No services for prevention of mother to child transmission of HIV were available at baseline. Within 18 months, 2298 pregnant women had received pretest counselling, and the acceptance of HIV testing reached 93.0%. Of all 2137 women who had an HIV test, 1588 (74.3%) returned to collect their result; 326 of the 437 HIV positive women diagnosed had post-test counselling, and 104 (24%) mother-child pairs received nevirapine prophylaxis. Lessons learnt Minimum staffing, an enhanced training programme, and involvement of district health authorities are needed for the implementation and successful integration of services for prevention of mother to child transmission of HIV. Voluntary counselling and testing services are important entry points for HIV.
prevention and care and for referral to community networks and medical HIV care services. A district approach is critical to extend programmes for prevention of mother to child transmission of HIV in rural settings. The lessons learnt from this pilot programme have contributed to the design of the national expansion strategy for prevention of mother to child transmission of HIV in Zimbabwe.

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**PMTCT/ARV, Primary prevention of sexual transmission/VCT**

Prasitwattanaseree S, Lallemant M, Costagliola D, Jourdain G, Mary JY. **Influence of mother and infant zidovudine treatment duration on the age at which HIV infection can be detected by polymerase chain reaction in infants.** Antivir Ther 2004;9(2):179-85.

**Abstr.** OBJECTIVE: To investigate the influence of zidovudine (ZDV) prophylaxis duration in mothers and infants on the age at which infection becomes detectable by DNA polymerase chain reaction (PCR) in non-breastfed infants. METHODS: Blood samples were collected sequentially from birth to 6 months in a Thailand perinatal HIV prevention trial in which 98 transmissions occurred. The proportions of infections detectable at birth and the Turnbull distributions of age at which infection became detectable after birth were compared according to actual ZDV treatment duration (mothers: no more than 7.5 weeks versus more; infants: 3 days versus at least 4 weeks), provided an adherence greater than 75%. RESULTS: Detectable infection at birth was less frequent in children whose mothers received a long treatment as compared to a short treatment (27 vs 50%, P=0.04). When mothers received a long treatment, infant ZDV treatment duration did not influence the distribution of age at which infection became detectable after birth (median 24 days). However, when mothers received a short treatment, this distribution was shifted to the right when infants received a long treatment (median 43 days, P<0.0001), and to the left when infants received a short treatment (median 11 days, P<0.0001). CONCLUSIONS: When mothers receive a short treatment, the proportion of infections detectable at birth is higher and the time at which infection becomes detectable after birth depends on the infant treatment duration. In the study conditions, a PCR result after 2 months could be used to define infection status.

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**PMTCT/ARV**


**Abstr.** Understanding how the level of human immunodeficiency virus type 1 (HIV-1)-infected breast milk cells (BMCs) affects HIV transmission via breast-feeding can shed light on the mechanism of infection and aid in establishing effective interventions. The proportion of infected cells to total cells was measured in serial breast milk samples collected from 291 HIV-1-infected women in Nairobi, Kenya, by use of real-time DNA polymerase chain reaction amplification of BMCs. The number of infected BMCs per million cells was associated with levels of cell-free viral RNA in breast milk (R = .144; P = .032), levels of cell-free virus in blood plasma (R = .365; P < .001), and the detection of proviral DNA in cervical and vaginal secretions (P < .001 and P = .030, respectively). The number of infected BMCs per million cells was lower in colostrum or early milk than in mature milk (P < .001). Previous studies demonstrated that the concentration of BMCs varies throughout lactation, and we used these data to transform infected BMCs per million cells to infected BMCs per milliliter. The estimated concentration of infected BMCs per milliliter was higher in colostrum or early milk than in mature milk (P < .001). Each log(10) increase in infected BMCs per milliliter was associated with a 3.19-fold-increased risk of transmission (P = .002), after adjustment for cell-free virus in plasma (hazard ratio [HR], 2.09; P = .03) and breast milk (HR, 1.01; P = 1.00). This suggests that infected BMCs may play a more important role in transmission of HIV via breast-feeding than does cell-free virus.

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**Infant feeding/Breastfeeding, MTCT**


**Notes:** A plea for high-quality, highly accessible, effective and voluntary contraception available to women on antiretroviral therapy in Africa.

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**Contraception**
URL: [http://www.unicef.org/sowc05/english/index.html](http://www.unicef.org/sowc05/english/index.html)

PMTCT/ARV, Infant feeding/breastfeeding


PMTCT/ARV
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