PMTCT Intelligence Report
prepared by the Bordeaux Working Group *

* by alphabetical order:

Design of the bibliographic retrieval of this issue

Databases: Current Contents Life Sciences, Clinical Medicine, Social & Behavioral Sciences
(weeks # 11 to 14: March 18, 2002 to April 8, 2002; coverage: journal and book citations)

Number of citations screened for this issue: 825

News Groups: AFRO-NETS, AMEDEO, CABA, Kaiser, Medscape, ProCAARE, RHO

Number of citations selected for this issue: 14

Subject Headings/Subheadings

Conference summary
Contraception
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.
Notes (prepared by the Bordeaux Working Group)
Author address, if available (for reprints)
URL, if available (link to author abstract/full text/journal TOC)
Subject Headings
Bassett MT. Ensuring a public health impact of programs to reduce HIV transmission from mothers to infants: The place of voluntary counseling and testing. Am J Public Health 2002; 92 (3): 347-351.

Notes: The author states two main bottlenecks in the implementation of prevention to mother-to-child transmission (PMTCT) of HIV programs: the cost of providing voluntary counselling and testing (VCT) on a wide scale and dropouts at each phase of the VCT process. Benefits of VCT are listed: when people learn their HIV status they are more likely to practice safe sex, can help assure access to appropriate care and reduction in fear, stigma, and shame related to AIDS. In pregnancy, VCT can target mother and child uptake of antiretroviral drugs to prevent MTCT of HIV as well as help the mother make breastfeeding decisions. The article gives recent data on the progress of PMTCT pilot projects supported by UN-sponsored programs and the Elizabeth Glaser Pediatric AIDS Foundation Call to Action program. Targeting specific gaps to improve VCT uptake among women are highlighted: the health care delivery system (lack of counsellors and delays in offering test results) and health worker (low pay, poorly supplied and equipped clinics, having no treatment options to offer and reluctance of health workers to promote VCT). Social barriers such as stigma, the involvement and support of men and community involvement are considered as crucial to improve program participation. The lack of treatment for mothers is pinpointed as an important barrier to the promotion of VCT. Possible solutions for these barriers are proposed: use of lay counsellors, group pre-test counselling, rapid testing, improving men's involvement and community education to promote VCT. The author responds to the questions: "could we do better with VCT? are we doing it "right"?" by giving alternative pathways and approaches: a) universal offer of HIV testing as part of a comprehensive pregnancy care package (using the "opt out" approach); b) universal treatment with various approaches: offering nevirapine to all women of unknown HIV status, performing rapid testing during labour or shortly after birth, proposing all women who have been offered mass treatment subsequent HIV counselling and testing and universal testing with women having the right to "opt out" of learning their test results; and c) mass treatment for all without testing.

Address: Bassett MT, Rockefeller Fdn, So Africa Off, 1 Jason Moyo Ave, Harare, ZIMBABWE

PMTCT, Primary prevention of sexual transmission/VCT


Notes: This retrospective study was conducted in Italy to investigate the potential consequences of highly active antiretroviral therapy (HAART) in 100 HIV-infected women becoming pregnant. The range of length of exposure was wide, with 23 women continuing their pre-pregnancy treatment. In 25 cases, the treatment regimen did not include zidovudine. Protease inhibitors were used in 23 cases overall, and C-section in 97 cases. Breast-feeding was systematically avoided. There was a single case of MTCT (upper limit of the confidence interval of the transmission rate: 4.6%). Considering that premature delivery was related to illicit intravenous drug use, that five distinct cases of congenital malformations were observed and that no severe maternal or neonatal toxicity was documented, the authors are fairly confident with the use of HAART during pregnancy. They acknowledge the fact that much larger studies and specific registries would be better suited to formulate recommendations than their study.

Address: Bucceri AM, Clin L Mangiagalli, Dept Obstet & Gynecol 2, Via Commenda 12, I-20122 Milan, ITALY

PMTCT/ARV


Notes: In the Correspondence section, Coutsoudis et al. continue to justify their findings published in 2001 and reporting a lower rate of MTCT of HIV in women who maintain exclusive breastfeeding until the child is three months compared to other breastfeeding mothers. They investigate the potential effect of a healthy survivor bias explaining their findings but child morbidity, and maternal HIV disease were not different between exclusive breastfeeders and those who mixed fed. Results were similar in children who survived more than three months of age and after using a Cox proportional hazards model with a time dependent variable for feeding practice.

Address: Coutsoudis A, Univ Natal, Dept Paediat & Child Hlth, Private Bag 7, Congella, SOUTH AFRICA
URL: NA

Infant feeding/Breastfeeding

Address: Eastman A, AnotherLook, Evanston, IL USA


Address: Guay L, Johns Hopkins Univ, Sch Med, Dept Pathol, Baltimore, MD 21205 USA


Address: Kent G, Univ Hawaii, Dept Polit Sci, Honolulu, HI 96822 USA


Address: Mbori-Ngacha D, Univ Nairobi, Nairobi, KENYA


Address: Nogueira SA, Univ Fed Rio de Janeiro, Dept Infect Dis, Rio De Janeiro, BRAZIL

Notes: Three commentaries are published by the JAMA in follow-up to the publication of Mbori-Ngacha et al on morbidity and mortality in breastfed and formula-fed infants, the last report of the Nairobi trial commented in Intelligence Report # 2 (1). Eastman et al believe that the conduct of the trial was not rigorous enough, with high levels of non compliance, to draw reassuring conclusions on the long-term risk of malnutrition and mortality in case of formula-feeding. Kent expresses a similar feeling considering the high rate of mixed feeding in each group and questions also several methodological points of laboratory and statistical analysis. On the contrary, Nogueira pleads for a wider avoidance of breast-feeding in case of maternal HIV infection in developing countries, considering her successful experience in Brazil. She criticizes in particular the editorial by Guay accompanying the original publication, also reported in Intelligence Report # 2 (1). In their reply to the above, Mbori-Ngacha et al repeat what they had reported in their original work and emphasize the fact that HIV-free survival is in their mind the critical composite judgement criteria to look at with such an intervention. Guay and Ruff do not appear to disagree with Nogueira as they believe formula-feeding is the best option when access to clean water, health education and medical care are guaranteed.

URL: NA

Infant feeding/Breastfeeding


Notes: An observational study conducted in 1997-1998 in Guinea-Bissau using the case-control design to look at the association between maternal syphilis, HIV-1 and HIV-2 infections on one hand and five different adverse pregnancy outcomes on the other hand. The impact of syphilis was modest, considering its low prevalence (<4%) in the control population. HIV-2 had no consequence on adverse pregnancy outcomes, a finding that is consistent with several published reports.

Address: Labbe AC, Hop Maison Neuve Rosemont, Dept Microbiol & Infectiol, 5415 Boul Assompt, Montreal, PQ H1T 2M4, CANADA


MTCT

**Notes:** This paper reports a study on the role of placental inflammation on MTCT of HIV-1, adjusting for other covariates of perinatal transmission in a trial on the effect of vaginal lavage on perinatal transmission conducted in Mombasa, Kenya and published in 2001. Among the 201 livebirths in the non intervention arm, 19.4% were HIV-infected perinatally. The prevalence of acute chorioamnionitis was 8.8% and was independently associated with peripartum HIV-1 transmission adjusting for maternal viral load, HIV shedding in the genital tract and in the baby's oral cavity. The prevention of chorioamnionitis via antibiotics could therefore prevent 3% of overall MTCT.

**Address:** Temmerman M, State Univ Ghent, Int Ctr Reprod Hlth, De Pintelaan 185 P3, B-9000 Ghent, BELGIUM


**Primary prevention of sexual transmission**

Richardson BA. **Nonoxynol-9 as a vaginal microbicide for prevention of sexually transmitted infections - It's time to move on.** JAMA 2002; 287 (9): 1171-1172.

**Notes:** This editorial summarises data on nonoxynol-9 as a vaginal microbicide to prevent STIs coming from several randomised clinical trials. Unfortunately, with somewhat inconsistent results, this intervention does not provide any protective effect of sexual transmission of HIV and is sometimes harmful. Although well designed and executed, the trial published by Roddy et al, (see below) leads to the same conclusion in another population than sex workers. The author conclusions are however in favour of further microbicide research as there is an urgent need for an inexpensive, effective, female-controlled method to prevent STIs in developing countries.

**Address:** Richardson BA, Univ Washington, Harborview Med Ctr, Dept Biostat, 325 9th Ave, Box 359909, Seattle, WA 98104 US

**URL:** NA

**Primary prevention of sexual transmission**

Roddy RE, Zekeng L, Ryan KA, Tamoufe U and Tweedy KG. **Effect of nonoxynol-9 gel on urogenital gonorrhea and chlamydial infection - A randomized controlled trial.** JAMA 2002; 287 (9): 1117-1122.

**Notes:** This paper reports the results of another randomised controlled trial assessing the efficacy of nonoxynol-9 gel and condom use vs condom use alone for the prevention of male-to-female transmission of STIs. The trial was conducted in Yaounde, Cameroon in 1998-2000. In this high-risk population of 1251 women (excluding sex workers) being treated for or who had symptoms of STIs, there was no difference in the incidence of urogenital gonorrhea or chlamydial infections between the two arms after six months of follow-up. There were 5 new cases of HIV infection in the gel group and 4 in the condom group.

**Address:** Roddy RE, Family Hlth Int, POB 13950, Res Triangle Pk, NC 27709 USA


**Primary prevention of sexual transmission**


**Notes:** Two more case reports (one fatal) of acute lactic acidosis and acute pancreatitis in women who had been on stable antiretroviral treatment with stavudine and didanosine prior to pregnancy and who continued their treatment until their developed these severe conditions at 33 and 37 weeks of pregnancy. Of notice, both were of Ugandan origin although treated in the UK.

**Address:** Sarner L, Newham Dist Gen Hosp, Greenway Ctr, London E13 8SL, ENGLAND


Notes: A short course antiretroviral regimen of nevirapine (NVP) reduces perinatal HIV transmission. Concerns have been raised over possible toxicity arising from widespread use of the drug. The authors of this report use decision analysis to evaluate potential effects of NVP toxicity on the clinical effectiveness and cost-effectiveness of perinatal HIV prevention strategies. For this, the model compared three strategies: single-dose NVP, short-course zidovudine (ZDV) and no intervention. Based on the perspective of a district health project, model estimates on HIV transmission with and without treatment, NVP reduction of MTCT, HIV prevalence, and various cost estimates (discounted life-time cost of infant HIV infection, VCT cost, mass therapy cost, NVP and ZDV therapy, discounted life expectancy without HIV and discounted disability adjusted life years [DALYs] lost with HIV) were used. Results showed that provision of NVP would cost less, produce more gains in DALYs and prevent more deaths than ZDV and no intervention as long as the rate of NVP toxicity did not exceed at least 9 times that observed in the NVP clinical trial (HIVNET 012). NVP would be economically preferable to ZDV as long as the rate of toxicity did not exceed 22 times that observed in the clinical trial. Stringer and colleagues briefly mention the issue of potential emergence of NVP resistance. Based on these findings, the authors state that it is unlikely that a selection of transient reverse transcriptase mutation would produce sufficient harm to outweigh the benefits of NVP. Main conclusion is that field implementation of NVP should not be delayed by concerns about its toxicity.

Address: Stringer JSA, Ctr Infect Dis Res Zambia, 9965 Makanta Close, Lusaka, ZAMBIA


PMTCT/ARV