



Scientists and Health Care Workers  
Committed to HIV/AIDS

# 4th International AIDS Society Conference on HIV Pathogenesis and Treatment

Sydney, Australia - July 22 - 25, 2007

## PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV-1 THROUGH BREASTFEEDING BY TREATING MOTHERS PROPHYLACTICALLY WITH TRIPLE ANTIRETROVIRAL THERAPY IN DAR ES SALAAM, TANZANIA - THE MITRA PLUS STUDY

*IAS Conf HIV Pathog Treat 2007 Jul 22-25;4th: Abstract No. TUAX101*

Kilewo C.<sup>1</sup>, Karlsson K.<sup>2</sup>, Ngarina M.<sup>1</sup>, Massawe A.<sup>1</sup>, Lyamuya E.<sup>1</sup>, Lipyoga R.<sup>1</sup>, Msemu G.<sup>1</sup>, Swai A.<sup>1</sup>, Mhalu F.<sup>1</sup>, Biberfeld G.<sup>2</sup>

<sup>1</sup>Muhimbili University College of Health Sciences, Dar es Salaam, Tanzania, United Republic of, <sup>2</sup>Swedish Institute for Infectious Disease Control (SMI) and Karolinska Institute, Stockholm, Sweden

---

**OBJECTIVES:** The main aim of this study was to investigate the possibility to reduce mother-to-child transmission (MTCT) of HIV-1 by treating HIV-1 infected women with triple antiretroviral therapy (ART) during late pregnancy and six months of breastfeeding.

**METHODS:** An open-label, non-randomized, prospective study (MITRA PLUS) has completed enrollment of HIV-1 infected pregnant women and six months of follow up after delivery in Dar es Salaam. The women were treated with zidovudine (ZDV) + lamivudine (3TC) + nevirapine (NVP) during late pregnancy and breastfeeding (NVP was replaced by nelfinavir for mothers with adverse reactions on NVP). ARV treatment was initiated at 34 weeks of gestation or earlier if the woman presented with symptomatic HIV infection or had CD4 cell counts below 200/ $\mu$ l. The infant received ZDV + 3TC for one week after birth. Treatment of the mothers was stopped at six months except for those who needed ART for their own health. Mothers were counseled on exclusive breastfeeding and encouraged to stop at six months. HIV-1 infection was diagnosed in the children by the Amplicor HIV-1 DNA v 1.5 PCR assay. Transmission of HIV-1 was analyzed using the Kaplan Meier survival technique.

**RESULTS:** There were 441 infants included in the survival analysis with regard to transmission of HIV-1. The cumulative proportion of HIV-1 infected infants was 4.1 % (95%CI 2.1%-6.0%) at 6 weeks and 5.0% (95%CI 3.2-7.0%) at 6 months. The median time of breastfeeding was 24 weeks.

**CONCLUSIONS:** These results show a low HIV-1 transmission rate for mothers given ZDV + 3TC + NVP in late pregnancy and during six months of breastfeeding. The strategy can be adopted by women in developing countries who intend to breast-feed their infants and has the advantage that mothers with low CD4 cell counts will benefit from the treatment for their own health.

2007-07-22

TUAX101

Prevention of Mother-to-Child Transmission

---

Copyright © 2007 - [International AIDS Society](#) (IAS). All information and content relating to the abstracts from the 3rd International AIDS Society Conference on HIV Pathogenesis and Treatment, such as text, graphics, logos, button icons, images, audio clips, and software is protected by copyright. Permission is hereby granted for the non-commercial use or reproduction of the information on this web site, provided that the use of such information is accompanied by an acknowledgement that IAS is the source of the information and the name of the author of the article.

AEGiS is made possible through unrestricted funding from [Boehringer Ingelheim](#), [Bridgestone/Firestone Charitable Trust](#), [Bristol-Myers Squibb Company](#), [Elton John AIDS Foundation](#), the [National Library of Medicine](#), and [donations](#) from users like you. **Always watch for outdated information. This article first appeared in 2007. This material is designed to support, not replace, the relationship that exists between you and your doctor.**

AEGiS presents published material, reprinted with permission and neither endorses nor opposes any material. All information contained on this website, including information relating to health conditions, products, and treatments, is for informational purposes only. It is often presented in summary or aggregate form. It is not meant to be a substitute for the advice provided by your own physician or other medical professionals. **Always discuss treatment options with a doctor who specializes in treating HIV.**

Copyright ©1980, 2007. AEGiS. All materials appearing on AEGiS are protected by copyright as a collective work or compilation under U.S. copyright and other laws and are the property of AEGiS, or the party credited as the provider of the content. Permission is hereby granted for the non-commercial use or reproduction of the information herein, provided that the use of such information is accompanied by an acknowledgement that IAS is the source of the information and the name of the author of the article.