

ART therapy for babies, mothers safely reduces HIV transmission

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Giving daily antiretroviral syrup to breastfeeding infants or treating their HIV-infected mothers with highly active antiretroviral drugs is safe and effective in preventing mother-to-child HIV transmission through breast milk, a study led by University of North Carolina at Chapel Hill investigators has found.

"This is an exciting development," said Charles van der Horst, M.D., a professor in the UNC School of Medicine and the study's lead investigator. "We may be able to spare mothers in the developing world a horrible choice by offering them an effective method for preventing transmission of HIV during breastfeeding."

These findings, from investigators at UNC-Chapel Hill, UNC Project-Malawi in Lilongwe, Malawi and the U.S. Centers for Disease Control and Prevention (CDC), were presented July 22 at the 5th International AIDS Society Conference on HIV Pathogenesis, Treatment and Prevention in Cape Town, South Africa.

Approximately 420,000 infants are infected with HIV annually, half through breast milk. HIV-infected women in resource-constrained areas face a terrible dilemma: provide the many health and nutritional benefits of breast milk but face a 20 percent chance of transmitting the virus to their baby or choose costly formula, which relies on an unsafe water supply and carries a higher risk of morbidity and mortality, and avoid transmitting HIV.

The Breastfeeding, Antiretrovirals and Nutrition (BAN) study is the only large-scale, randomized trial comparing infant prophylaxis or maternal treatment to an enhanced standard-of-care arm in the prevention of HIV transmission through [breast milk](#). The study was conducted in Lilongwe, Malawi at a single site. Investigators randomly assigned a total of 2,367 mother-infant pairs to one of three treatment arms. For both the interventions, the probability of [HIV-infection](#) was significantly lower than in the enhanced control arm.

Of the randomized infants, 4.9 percent were found to be HIV positive at birth. Among infants who were HIV-free at one week old, 6.4 percent on the enhanced control arm were infected by 28 weeks, compared to 3.0 percent of the infants on the maternal treatment arm and 1.8 percent of the infants who received daily nevirapine syrup. Upon examining the probability of HIV infection or death by 28 weeks postpartum, 7.6 percent of the infants on the enhanced control arm were HIV-infected or died compared to 4.7 percent of the infants on the maternal treatment arm, and 2.9 percent of the [infants](#) on the infant prophylaxis arm.

The BAN study results give global and national policy makers the choice of which intervention (maternal or infant antiretroviral intervention) to implement based on the conditions and resources in their particular setting. "We hope to see these results translated quickly into program and policy.

Source: University of North Carolina School of Medicine ([news](#) : [web](#))

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