

# AIDS BRIEFS

## CO-TRIMOXAZOLE AND BIRTH OUTCOMES IN HIV-POSITIVE ZAMBIAN WOMEN

Co-trimoxazole prophylaxis significantly improves birth outcomes in Zambian women with HIV, according to a study of mother-to-child transmission (MTCT) carried out in Lusaka. Co-trimoxazole is offered routinely to women with advanced HIV in Zambia.

Co-trimoxazole prophylaxis began to be offered routinely as part of HIV care in November 2003 for women whose CD4 cell counts fell below 200 copies/mm<sup>3</sup>. This included pregnant women after 14 weeks of gestation who were enrolled in a large MTCT study in Lusaka.

The MTCT study enrolled over 1 400 women to study the effects of breastfeeding on HIV transmission between May 2001 and April 2005. Women treated with co-trimoxazole were compared with those who gave birth before the introduction of co-trimoxazole prophylaxis. Women who received antiretroviral therapy were excluded from the study.

Co-trimoxazole prophylaxis was associated with several improvements in pregnancy outcomes. The percentage of preterm births declined from 31% to 18%. Clinical chorioamnionitis declined from 6% to zero. Birth weights increased, with a mean birth weight an average of 100 g more, and there was a reduction in neonatal mortality.

However, the authors caution that the study was not prospectively controlled and could not look at co-trimoxazole-related side-effects. Co-trimoxazole is known to reduce levels of folic acid, a deficiency of which in the first trimester is associated with neural tube birth defects and the drug is avoided during the first trimester.

Walter J, *et al.* Thirteenth Conference on Retroviruses and Opportunistic Infections, Denver. Abstract 126, February 2006.

## HIGH TB RATES IN THE WESTERN CAPE

Infectious smear-positive tuberculosis (TB) is most commonly found in people with HIV co-infection and probably accounts for the rising rates of TB in South Africa, according to a study of TB and HIV prevalence in a peri-urban township in Cape Town. A high number of smear-negative individuals were also found, but these people are thought to be more likely to be HIV-negative.

The study, carried out by a team led by Linda-Gail Bekker of the Desmond Tutu HIV Centre at the University of Cape Town, aimed to better understand the association between age, sex and HIV prevalence with TB and involved the random selection of 8% of adults aged more than 14 years. A total of 1 457 people were selected for the study, but only 959 could be located, and of these 197 would not participate – probably reflecting fear of either a TB or HIV diagnosis. In the end, only 762 people took part in the study.

At each clinic visit, participants were given an oral HIV test, questioned about TB symptoms and risk factors and early-morning and nebulised sputum samples were collected.

A total of 37 people had TB (4.8% of the total population). Most of those who were smear-positive were also HIV-positive, but those who were smear-negative were also HIV-negative. By looking at the prevalence in the survey and comparing how many people were on TB treatment at the start of the study, researchers could assess how good the local TB programme was at TB case finding and starting people on treatment. The best case finding was in smear-positive TB cases who were HIV-negative, with about 67% already diagnosed and on treatment. For those with HIV, only 36% of those with smear-positive TB and 19% with smear-negative TB were on treatment. However, only 5% of people who were both HIV-negative and smear-negative were on treatment.

The township used in the study has an estimated population of 13 700 and an HIV prevalence of 23%. In 2005, the township had a TB notification rate of over 2 000 per 100 000 and 62% of cases had coexistent HIV. Data from the national TB programme in 2004 showed that about 70% of those with TB complied with their treatment (64% of those with coexistent HIV). However, a higher percentage of people with HIV died or interrupted TB treatment than among the total population.

Over the last 10 years TB incidence has increased in all age groups, but the greatest increase is among those aged between 20 and 40 years, the age at which most HIV infection occurs.

Bekker L-G, *et al.* Thirteenth Conference on Retroviruses and Opportunistic Infections, Denver. Abstract 69, February 2006.

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