

Track/Category: D1

Title: Comparing Two Strategies for Enrolling HIV-infected pregnant women from Antenatal Care to Care and Treatment Services in Cameroon: Continuum of Care Operations Research (CORE) study

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Background: The CBCHB supports PMTCT services in 434 facilities. Before 2008, with single-dose nevirapine (SD-NVP) prophylaxis, the mother-to-child HIV transmission (MTCT) rates were 13.8%-14.5%. In 2008, transmission rates at CBCHB's five care and treatment (C&T) centres that used combination ARV prophylaxis regimens were 6.0%-7.6%. In 2009, CBCHB initiated the CORE study to compare the outcomes of two PMTCT-C&T referral systems for HIV-positive mothers, so that the most effective system could be scaled-up.

Methods: A total of 145 PMTCT sites within 50km of one of the CBCHB's five C&T centres in three regions of Cameroon were randomly assigned to Systems I and II. In System I, linkage nurses referred HIV-positive women from PMTCT sites to C&T centres and followed up women who did not enroll by phone or home visit. In System II, linkage nurses drew blood from HIV-positive women at PMTCT sites for CD4 testing and later contacted the women with the results. Women with $CD4 \leq 350 \text{ cells/mm}^3$ were referred a C&T centre for ART initiation. Women with $CD4 > 350 \text{ cells/mm}^3$ were given zidovudine and SD-NVP prophylaxis at the PMTCT sites and referred to a C&T centre.

Results:

| OUTCOME | SYSTEM I | | SYSTEM II | | P-value | TOTAL | |
|---|----------|------|-----------|------|---------|---------|------|
| | n=944 | % | n=1000 | % | | n=1944 | % |
| # who received CD4 count test | 857 | 90.8 | 960 | 96.0 | <0.001 | 1817 | 93.5 |
| # enrolled at a C&T site | 676 | 71.6 | 748 | 74.8 | 0.12 | 1424 | 73.3 |
| # who received multidrug ARV prophylaxis | 501 | 53.1 | 603 | 60.3 | 0.002 | 1104 | 56.8 |
| # of infants who received PMTCT prophylaxis/# live births | 389/405 | 96.0 | 419/444 | 94.4 | 0.32 | 808/849 | 95.2 |
| # of HIV-positive infants based on PCR results at six weeks/ # tested | 9/256 | 3.5 | 7/259 | 2.7 | 0.78 | 16/515 | 3.1 |

Conclusions: In System II, HIV-positive women were significantly more likely to receive a CD4 test and multidrug ARV prophylaxis than in System I. The overall observed MTCT rate was 3.1%, which is half the previous rate (6.0-7.6%). More effective linkage of HIV-positive mothers to C&T programs appears to reduce MTCT rates.

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