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$350cells/mm^3 were referred a C&T centre for ART initiation. Women with CD4>350cells/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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