Extended Nevirapine Prophylaxis for Infants and Its Impact on Vertical Transmission Rates at 18 months, a Retrospective Cohort Study

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BACKGROUND

- Interventions to prevent mother to child transmission (MTCT) of HIV in many settings are complicated by necessarily high rates of prolonged breastfeeding

- In sub-Saharan Africa up to 15% of HIV infections in infants may be attributed to breastfeeding

OBJECTIVES

- To determine the rate for MTCT in infants on extended nevirapine (eNVP) prophylaxis during breastfeeding at eighteen months of age

METHODS

Setting

- FACES is a PEPFAR-funded comprehensive HIV prevention, care and treatment program based in Migori, Homa bay, Kisumu Counties

- The study was conducted in FACES supported Kenyan Ministry of Health (MOH) clinics :
  - Lumumba Health Center, Kisumu County
  - Migori District Hospital, Migori County
  - Oyani Health Center, Migori County

METHODS

Time Interval:
- eNVP Cohort – June 2011 to November 2013
- Historical Cohort – January 2008 to January 2011

This cohort study compared:
- MTCT rates between a group of prospectively followed infants receiving eNVP prophylaxis

- A historical cohort who received single dose NVP at birth with 6 weeks of zidovudine (AZT)

METHODS

Table 2. Daily nevirapine (dNVP) prophylaxis for HIV-exposed infants

Age	Nevirapine dose
0 – 6 weeks	Birth weight <2500 g – 10 mg (1 ml) once daily Birth weight >2500 g – 15 mg (1.5 ml) once daily
6 weeks – 14 weeks	20 mg (2 ml) once daily
14 weeks to 6 months	25 mg (2.5 ml) once daily
6 months – 9 months	30 mg (3 ml) once daily
9 months – 12 months	40 mg (4 ml) once daily
>12 months	50 mg (5 ml) once daily

METHODS

Analysis

- Data was transferred to STATA 12 for all the analysis

- Bivariate analysis was done to determine significant differences between cohorts and infection rate using Chi Square and Fishers Exact Tests as Appropriate

- A p-value < 0.05 was considered significant

RESULTS

Variable	Historical n(%) n=362	eNVP n(%) n=283	p-value
Results at week 6			
Negative	280(90.6)	274(97.9)	<0.001*
Positive	29(9.4)	6(2.1)	
Results at Month9			
Negative	205 (96.2)	213 (98.2)	0.256
Positive	8(3.8)	4(1.84)	
Results at 18 Months			
Negative	143(96.6)	172(100)	0.020*
Positive	5(3.4)	0(0)	
Cumulative Infection			
Negative	143(77.7)	172(94.5)	<0.001*
Positive	41(22.3)	10(5.5)	

CONCLUSION

- Implemented within a MOH PMTCT program:
  - Infant eNVP prophylaxis during the breastfeeding period, combined with appropriate ART for the mother during pregnancy, is associated with a low risk of HIV transmission

- Extended nevirapine (NVP) can be safely and effectively implemented in PMTCT programs

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