Extended daily nevirapine prophylaxis for HIV exposed infants improves uptake of HIV testing in Western Kenya.

Nimz, A.[1], Akama, E.[2], Mburu, M.[2], Diouf, K.[3], Oyaro, P.[2], Abuogi, L.[1, 2, 4]

[1]University of Colorado School of Medicine, and [4]Department of Pediatrics, Aurora, Colorado
[2]Kenya Medical Research Institute, Research Care and Training Program, Family AIDS Care and Education Services (FACES), Kisumu, Kenya
[3] Department of Obstetrics, Gynecology and Reproductive Biology, Division of Global OB GYN, Brigham and Women's Hospital, Boston, MA, USA

- The findings and conclusions in this presentation are those of the author(s) and do not necessarily represent the official position of U.S. Centers for Disease Control and Prevention/the and the Government of Kenya Instructions
- This research has been supported by the President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S Centers for Disease Control under the terms of Cooperative Agreement # PS001913"

BACKGROUND

- Early infant diagnosis for HIV is a critical component of the care of HIV exposed infants
- For infants who contract HIV and do not receive antiretroviral therapy (ART), there is a 50% mortality rate
- <15% of HEI worldwide receive appropriate testing

OBJECTIVES

- Compare uptake and timliness of HIV testing between infants receiving extended daily NVP and a historical cohort who received 6 weeks of zidovudine (AZT) at three clinics in Kenya.
- The primary outcome was proportion of infants returning for HIV testing.

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:

- Testing uptake and timeliness between a group of prospectively followed infants receiving eNVP prophylaxis and 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

Uptake of Testing:

Testing Timepoint	**Historical Cohort *n=362***	**NVP Cohort n=*283***	**p-value**
6 week PCR uptake	330 (91.2%)	280 (98.9%)	**<0.001**
9-12 month antibody uptake	204 (56.4%)	209 (73.9%)	**<0.001**
18 month antibody uptake	150 (41.4%)	173 (61.1%)	**<0.001**

RESULTS

Timeliness of testing

Testing Timepoint	Historical Cohort *n=362*	NVP Cohort n=*283*	p-value
Mean age at 9-12 month test	12.6 months	10.4 months	
Mean age at 18 month test	19.4 months	19.7 months	0.436
Tested on time 9-12 months	37(18.1%)	21(10.1%)	**0.018**
Tested on time 18 months	5(3.3%)	6(3.6%)	0.916

RESULTS

- At each testing timepoint, uptake of testing was significantly higher among infants receiving extended daily NVP
- The historical cohort had significantly more infants testing on time for the 9-12 month antibody test compared with the NVP cohort
- There was no difference in the timeliness of testing between cohorts at 18 months

CONCLUSION

Extended daily anti-retroviral prophylaxis for infants is associated with significant increases in HIV-testing uptake.

This may lead to improved outcomes including reduced HIV transmission and early HIV diagnosis.

Acknowledgements

- Kenyan Ministries of Health (MOH)
- Family AIDS Care and Education Services (FACES)
- University of California San Francisco (UCSF)
- Kenya Medical Research Institute (KEMRI)
- U.S. President's Emergency Plan for AIDS Relief (PEPFAR)
- Centers for Disease Control and Prevention (CDC)
- The women, men and children in the communities served

University of California San Francisco

UCSF

KENYA MEDICAL RESEARCH INSTITUTE

KEMRI

CDC

SAFER • HEALTHIER • PEOPLE™

KENYANS AND AMERICANS IN PARTNERSHIP TO FIGHT HIV/AIDS