Retention of HIV Pediatric Patients Receiving Antiretroviral Treatment in Rwanda

Gilbert Tene¹, Maria Lahuerta², Veronica Mugisha¹, Leonard Kayonde³, Ribakare Muhayimpundu³, Jean Pierre. Nyemazi³, Greet Vandebriel¹, Sabin Nsanzimana³, Ruben Sahabo¹, Peter Twyman², Elaine J. Abrams²

Methods:
- Retrospective observational analysis of retention rates and factors associated with non-retention of pediatric patients (<15 years old) starting ART at 34 ICAP-supported sites in Rwanda
- Kaplan-Meier (KM) curves used to assess the probability of LTF and death at 12 and 24 months
- Cox proportional-hazards examined patient and site-level factors associated with LTF and death

Results: Between Jan 2004 - Sep 2010
- 2,371 children initiated ART:
  - median age: 6.6 yrs [IQR: 3.4-10.4]; <2 yrs: 12.4%; 48.9% girls
  - WHO stage III/IV: 54.6%;
  - Severe immune suppression: 21.4%
- ART regimens:
  - AZT/D4T+3TC+NVP 74.8%
  - AZT/D4T + 3TC + EFV 13.3%;
  - ABC+3TC+NVP/EFV 10.5%
- Median time on ART: 2.5 years [IQR 1.2-3.7]

Presented at the 3rd HIV Pediatrics Workshop, 15 - 16 July 2011, Rome, Italy
Non retention and associated factors

- Probability of LTF was 1.8% and 2.8% and that of death 3.2% and 4.5% at 12 and 24 months respectively.
- Factors at ART initiation associated with known death included:
  - Younger age (AHR=4.3, 95%CI[2.7-7.0]; AHR=1.7, 95%CI[1.1-2.7]),
  - Low weight-for-age Z-score (AHR=4.1, 95%CI[1.4-11.4]),
  - WHO stage IV (AHR=8.6, 95%CI[3.2-22.7])
  - Severe immunodeficiency (AHR=2.3, 95%CI[1.4-3.9])
  - Earlier year of ART initiation,
- Factors associated with LTF included
  - Younger age (AHR ≤24mo vs. ≥5years = 2.1, 95%CI [1.2-3.6])
  - Type of facility AHR primary vs. tertiary =2.0, 95%CI [1.1-3.5])
  - Recent year of ART initiation

Conclusion:

- Retention of children on ART was high at ICAP supported sites in Rwanda
- Given that children < 24 months were at higher risk of death and LTFU, emphasis must be put on high quality PMTCT to prevent new children’s HIV cases and start ART as early as possible for HIV infected ones

Presented at the 3rd HIV Pediatrics Workshop, 15 - 16 July 2011, Rome, Italy