

# Incidence of HIV Infection Among Children Aged Less Than 2 Years Born from HIV Infected Mothers Attending KCMC Hospital in Moshi Urban from January 2014 to December 2015

Asia Hemed, Nateiya Yongolo, sweetness Laizer, Sanjura Biswaro, Aisa Shayo,  
Blandina Mmbaga

Kilimanjaro Clinical Research Institute

**Introduction:** By 2014, approximately 36.9 million people worldwide were HIV positive. With the majority residing in SSA (71%). Due to increased ART coverage and services, global prevalence has increased while new cases decreased by 33% from 2001 to 2012. In 2012 children accounted for about 230000 new cases in SSA. Due to improved PMTCT services, the incidence in children decreased by 38% between the years 2009 to 2012. In Tanzania, by 2012, approximately 1.5 million people were HIV positive. Vertical transmission accounted for about 18% of new infections. This study looked at the incidence of HIV infection in children aged < 24 months born from HIV-infected mothers and risk factors for HIV infection in children.

**Methodology:** This was a hospital-based retrospective cohort study conducted using data from January 2014 to December 2015 for children aged < 24 months attending the Child-Centered and Family Care Clinic at KCMC hospital in Moshi in the Kilimanjaro region. Data were extracted from the Preventive of mother to child (PMTCT) follow-up attendance books for mother characteristics. The exposed baby follows up a clinic where the results of DBS were extracted and a child growth record. A questionnaire for data extraction was prepared, and the data was analyzed using SPSS version 20.

**Results:** A total of 141 children born to seropositive mothers were enrolled. Females were 55.3% (n=78) and a majority 86.5 % (n=122) aged 0-20 weeks. The incidence of HIV infection was 14.2 % (n=20). In multivariate logistic regression, the risk of HIV infection in children less than two years old was higher in children delivered by C-section (OR=7.19, 95%CI 2.14- 24.20) Children who didn't receive nevirapine syrup (OR=19.5, 95%CI 5.67- 67.09), and children on mixed feeding (OR=4.86, 95%CI 1.72-13.69). Also, not using ART during pregnancy was associated with HIV infection in the newborn (OR=28.75, 95%CI 8.54- 96.81).

**Conclusion:** Comprehensive care, including highly active antiretroviral therapy to HIV-infected women during pregnancy, could reduce the risk of HIV in children. Proper PMTCT practices and extensive education to the seroconverted mothers and the society, in general, could improve children's survival.

