

OA-013 **VIROLOGICAL RESPONSE TO EARLY COMBINED ANTIRETROVIRAL THERAPY IN HIV-INFECTED INFANTS: EVALUATION AFTER TWO YEARS OF TREATMENT IN THE PEDIACAM STUDY**

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Background Little is known about virological responses to early combined antiretroviral therapy (cART) in HIV-infected infants in limited-resource settings. We estimated the probability of achieving viral suppression within two years of cART initiation, and investigated the factors associated with success.

Methods We analysed all 190 infants from the Cameroon PediaCAM study who began free cART before the age of 12 months. The main outcome measure was viral suppression (<1000 cp/mL) on at least one occasion. The other outcome measures considered were viral suppression (<400 copies/mL) on at least one occasion and confirmed viral suppression (both thresholds) on two consecutive occasions. We used competing-risks regression for a time-to-event analysis to estimate the cumulative incidence of outcomes, and univariate and multivariate models to identify risk factors.

Results During the first 24 months of cART, 20.0% (38) of the infants died, giving a mortality rate of 11.9 deaths per 100 infant-years [95% CI: 8.1–15.7]. The probability of achieving a viral load below 1000 or 400 copies/mL was 80.0% [69.0–81.0] and 78.0% [66.0–79.0], respectively. The probability of virological suppression (with these two thresholds) on two consecutive occasions was 67.0% [56.0–70.0] and 60.0% [49.0–64.0], respectively. Virological success was associated with not having missed any doses of treatment before the visit, but not with socioeconomic and living conditions.

Conclusions The long-term daily administration of drugs to babies seems to be difficult. Mortality remained high despite early cART initiation. Future studies should focus on longer-term treatment outcomes in children still alive after two years of treatment.