

ABSTRACT Maternal antiretroviral treatment (ART) is recommended for prevention of mother-to-child HIV-1 transmission (PMTCT), including in women with high CD4+ cell counts. Within a pediatric HIV-1 vaccine trial PedVacc 002, we assessed hematologic profiles of infants born to mothers receiving ART. All mothers had CD4+ cell counts of $>350 \text{ mm}^{-3}$; 93% received zidovudine-containing ART; infants received nevirapine up to 6 weeks and cotrimoxazole after 6 weeks. Among 84 infants at 19 weeks, 58% had hematologic toxicity; 44% had neutropenia and 23% had anemia. Breastfeeding was associated with 3.8-fold higher risk of neutropenia (RR 3.8, 95% CI 1.03-14.1, $p = 0.008$). Hematologic monitoring and PMTCT regimen selection are important for optimizing infant outcomes