

## **Vitamin A supplementation and human immunodeficiency virus type 1 shedding in women: results of a randomized clinical trial.**

### **Abstract:**

Observational studies have associated vitamin A deficiency with vaginal shedding of human immunodeficiency virus (HIV) type 1-infected cells and mother-to-child HIV-1 transmission. To assess the effect of vitamin A supplementation on vaginal shedding of HIV-1, a randomized, double-blind, placebo-controlled trial of 6 weeks of daily oral vitamin A (10,000 IU of retinyl palmitate) was conducted among 400 HIV-1-infected women in Mombasa, Kenya. At follow-up, there was no statistically significant difference in the prevalence of HIV-1 DNA (18% vs. 21%,  $P=.4$ ) or the quantity of HIV-1 RNA (3.12 vs. 3.00 log(10) copies/swab,  $P=1.0$ ) in vaginal secretions of women receiving vitamin A, compared with women receiving placebo. No significant effect of supplementation on plasma HIV-1 load or CD4 or CD8 cell counts was observed, and no effect was seen among women who were vitamin A deficient at baseline. Vitamin A supplementation is unlikely to decrease the infectivity of women infected with HIV-1.