

**Abstract:**

The incidence of peripheral neuropathy (PN) among adults initiating antiretroviral therapy (ART) containing stavudine (d4T) versus zidovudine (ZDV) is not well described. We compared 1-year incidence between d4T- and ZDV-based regimens in adults initiating ART in a programmatic setting in Kenya. Of 1,848 adults on ART, 1,579 (85 %) initiated d4T-based and 269 (15 %) initiated ZDV-based regimens. One-year incidence of symptomatic PN per 100 person-years was 21.9 (n = 236) among d4T users and 6.9 (n = 7) among ZDV users (P = 0.0002). D4T was associated with 2.7 greater risk of PN than ZDV (adjusted hazard ratio, 2.7, P = 0.009). In settings with continued d4T use, such as Africa, the effects of d4T on PN compared to ZDV should be considered when choosing ART regimens.