

**Comment in:**

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**Cancer risk in the Swiss HIV Cohort Study: associations with immunodeficiency, smoking, and highly active antiretroviral therapy.**

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**BACKGROUND:** Persons infected with human immunodeficiency virus (HIV) have an increased risk for several cancers, but the influences of behavioral risk factors, such as smoking and intravenous drug use, and highly active antiretroviral therapy (HAART) on cancer risk are not clear.

**METHODS:** Patient records were linked between the Swiss HIV Cohort Study and Swiss cantonal cancer registries. Observed and expected numbers of incident cancers were assessed in 7304 persons infected with HIV followed for 28,836 person-years. Relative risks for cancer compared with those for the general population were determined by estimating cancer registry-, sex-, age-, and period-standardized incidence ratios (SIRs).

**RESULTS:** Highly elevated SIRs were confirmed in persons infected with HIV for Kaposi sarcoma (KS) (SIR = 192, 95% confidence interval [CI] = 170 to 217) and non-Hodgkin lymphoma (SIR = 76.4, 95% CI = 66.5 to 87.4). Statistically significantly elevated SIRs were also observed for anal cancer (SIR = 33.4, 95% CI = 10.5 to 78.6); Hodgkin lymphoma (SIR = 17.3, 95% CI = 10.2 to 27.4); cancers of the cervix (SIR = 8.0, 95% CI = 2.9 to 17.4); liver (SIR = 7.0, 95% CI = 2.2 to 16.5); lip, mouth, and pharynx (SIR = 4.1, 95% CI = 2.1 to 7.4); trachea, lung, and bronchus (SIR = 3.2, 95% CI = 1.7 to 5.4); and skin, nonmelanomatous (SIR = 3.2, 95% CI = 2.2 to 4.5). In HAART users, SIRs for KS (SIR = 25.3, 95% CI = 10.8 to 50.1) and non-Hodgkin lymphoma (SIR = 24.2, 95% CI = 15.0 to 37.1) were lower than those for nonusers (KS SIR = 239, 95% CI = 211 to 270; non-Hodgkin lymphoma SIR = 99.3, 95% CI = 85.8 to 114). Among HAART users, however, the SIR (although not absolute numbers) for Hodgkin lymphoma (SIR = 36.2, 95% CI = 16.4 to 68.9) was comparable to that for KS and non-Hodgkin lymphoma.

No clear impact of HAART on SIRs emerged for cervical cancer or non-acquired immunodeficiency syndrome-defining cancers. Cancers of the lung, lip, mouth, or pharynx were not observed among nonsmokers.

**CONCLUSION:** In persons infected with HIV, HAART use may prevent most excess risk of KS and non-Hodgkin lymphoma, but not that of Hodgkin lymphoma and other non-acquired immunodeficiency syndrome-defining cancers. No cancers of the lip, mouth, pharynx, or lung were observed in nonsmokers.