

Table 2.13. Cohort studies of HIV and anal cancer

Reference, location.	Cohort description	Detection method	No. of cases/deaths	Relative risk (95% CI)	Adjustment for potential confounders	Comments
Goedert et al., (1998), USA	98 336 people registered with AIDS, 7 regions	Probabilistic linkage with cancer registry data	35	31.7 (11.6–69.2)	SIR adjusted for age and sex	From AIDS diagnosis to 27 months post AIDS
Grulich, (1999), Australia	People registered with AIDS, NSW, 1984–1995	Probabilistic linkage with cancer registry data.	1	16.6 (0.42–92.7)	SIR adjusted for age and sex	From 5 years before AIDS to death.
Petruckevitch et al., (1999), USA	2048 people attending 11 HIV clinics in London, 1982–1995	Clinic records	2	222 (27–803)	Age and sex	
Frisch et al., (2000), USA	309 365 people registered with AIDS, 1980–1996, 11 regions	Probabilistic linkage with cancer registry data.	Male Female (239 cases)	37.9(33.0–43.4) 6.8 (2.7–14.0)	Age, sex, race	From 5 years before to 5 years after AIDS
Frisch et al., (2001), USA.	People registered with AIDS, 1980–1996, 11 regions	Probabilistic linkage with cancer registry data.	221	33.8 (29.5–38.6)	SIR adjusted for age and sex	From 5 years prior AIDS to 27 months after AIDS.
Grulich et al., (2002), Australia.	People registered with HIV or AIDS, 1985–1999, national.	Probabilistic linkage with cancer registry data.	10	37.1 (17.8–68.3)	SIR adjusted for age and sex	From 5 years prior AIDS, or HIV, to death
Dal Maso et al., (2003), Italy.	People registered with AIDS, 1985–1998, 19 regions.	Probabilistic linkage with cancer registry data.	6	33.6 (12.1–73.6)	SIR adjusted for age and sex	From 5 years prior to AIDS to 3.5 years after
Biggar et al., (2004), US	8828 people aged 60+ registered with AIDS 1981–1996, USA	Probabilistic linkage with cancer registry data	6	8.2 (3.0–17.8)	SIR adjusted for age, sex and race	From 60 months before to 27 months after AIDS
Clifford et al., (2005), Switzerland	7304 people with an HIV or AIDS diagnosis, 7 hospitals 1985–2002.	Probabilistic linkage with cancer registry data.	5	33.4 (10.5–78.6)	SIR adjusted for age and sex	3 months after study entry to 1996–2002. No effect of previous HAART use on risk.
Newnham et al., (2005), England.	33 190 people registered with HIV, 1985–2001, Thames region.	Probabilistic linkage with cancer registry data	18	23.1 (13.7–36.5)	SIR adjusted for age and sex	From HIV diagnosis to end 2001.

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Engels et al., (2006), USA.	375 933 adults registered with AIDS, 1980–2002, 11 regions	Probabilistic linkage with cancer registry data	107	1980–89: 18.3 (9.1–32.7) 1990–95: 20.7 (15.5–27.0) 1996–02: 19.6 (14.2–26.4)	SIR adjusted for age, sex, race, year, and region.	From 4 to 27 months post AIDS No decline
Grulich et al., (2007a), 6 countries	444 172 people with HIV or AIDS, 1980–2002	Probabilistic linkage with cancer registry data	303	28.8 (21.6–38.3)	Meta-SIR, adjusted for age and sex	Meta-analysis.
Hessol et al., (2007), USA	14 210 adults with AIDS registered in 1990–2000 (San Francisco). Cancer 1985–2002.	Probabilistic linkage with cancer registry data	79	13.4 (10.6–16.7)	SIR adjusted for age, sex and race	From 5 years pre-AIDS. Risk not related to current HAART use, and was higher in the HAART era (2.74, 1.03–7.33; adjusted for age and other confounders).
Serraino et al., (2007), Italy	8074 people with HIV in France (DMI-2; 6072) and Italy (ISS; 2002)	Cancer diagnoses during follow up.	5	33 (11–76)	SIR adjusted for age and sex	From HIV cohort entry.
D’Souza et al., (2008), USA	6972 men in the MACS	Verified histological diagnoses, and (few) self-report	28	Inc 69/10 ⁵ in HIV+ and 14/10 ⁵ in HIV-.	age	IN HIV+ anal cancer incidence was 4 fold higher in the HAART era; and RR 3.3 (1.4–7.9) in those with CD4 nadir < 200
Engels et al., (2008), USA	57 350 people registered with HIV, 1991–2005.	Probabilistic linkage with cancer registry data (Colorado, Florida, NJ)	18	9.2 (5.5–15)	SIR adjusted for sex, age, year, region.	4–60 months after HIV registration No change after 1996.
Long et al., (2008), USA	2566 patients with HIV in Baltimore (Johns Hopkins cohort), 1996–2005.	Matching with cancer registry.	10	39.0(18.7–71.7)	SIR adjusted for age, race, sex, and year.	

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Patel et al., (2008), USA	54 780 people with HIV in the US (HOPS/ASD study)	Clinical diagnosis of cancer, compared to SEER rates	61	42.9 (34.1–53.3) 1992–95: 31.4 (16.2–60.8) 1996–99: 48.2 (32.4–71.6) 2000–03: 59.4 (44.0–80.3)	Directly standardised RR, adjusted for age, race and sex	From HIV diagnosis to death or end of study (2003). Significantly increasing SRRs (p = 0.02) Risk not associated with receipt of ARV therapy. HR for nadir CD4 <200 of 5.82 (p = 0.017)
Piketty et al., (2008), France	86 332 people with HIV, French Hospital database	Hospital diagnoses	132	Incidence increased from 10.5 to 39.3 per 100 000	age, gender, the HIV transmission group, CD4 cell count at anal cancer, the AIDS status and the period of cARTavailability in France	Significant increase in multivariate model which adjusted for age at enrolment in 10 year groups.