

Table 2.21. Cohort studies of HIV and lung cancer¹

Reference, location.	Cohort description	Detection method	No. of cases	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	27, adenoca.	2.5 (1.0–5.1)	SIR adjusted for age and sex	No increase for other histological types of lung cancer
Parker et al., (1998), USA	Prospective clinical follow-up of 26 181 HIV-positive patients	Clinical follow-up	36	6.5 (4.5–8.9)	SIR adjusted for age and sex	
Grulich (1999), Australia	3616 people registered with AIDS, NSW, 1984–1995	Probabilistic linkage with cancer registry data.	6	3.80 (1.4–8.3)	SIR adjusted for age and sex	From 5 years before AIDS to death.
Frisch et al., (2001), USA.	People registered with AIDS, 1980–1996, 11 regions	Probabilistic linkage with cancer registry data.	808	4.5 (4.2–4.8)	SIR adjusted for age and sex	From 4 to 27 months after AIDS.
Phelps et al., (2001), USA	871 HIV-infected women enrolled in the HERS study	Clinical follow-up	4	6.39 (3.71–11.02)	SIR adjusted for age	
Grulich et al., (2002), Australia.	8351 people registered with HIV or AIDS, 1985–1999, national.	Probabilistic linkage with cancer registry data.	17	1.44 (0.84–2.30)	SIR adjusted for age and sex	From 5 years prior AIDS, or HIV, to death
Allardice et al., (2003), Scotland	People registered with HIV or AIDS, 1981–1996, national.	Probabilistic linkage with cancer registry data	5	4.1 (1.3–9.5)	SIR adjusted for age and sex	From HIV diagnosis to end 1996.
Bower et al., (2003), United Kingdom	Prospective clinical database of 8640 HIV-positive patients	Clinical follow-up	11	8.93 (4.92–19.98), HAART era	SIR adjusted for age and sex	Incidence highest in post-HAART era
Dal Maso et al., (2003), Italy	12 104 people with AIDS	Probabilistic linkage with cancer registry data	21	7.4 (4.6–11.3)	SIR adjusted for age and sex	From 6 months before to 60 months after AIDS. SIR were similar in pre- (7.3) and post-(7.9) HART periods; Sir was highest in IDU (23.9)
Dal Maso et al., (2003), Italy.	People registered with AIDS, 1985–1998, 19 regions.	Probabilistic linkage with cancer registry data.	22	2.4 (1.5–3.7)	SIR adjusted for age and sex	From 6 months before 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	105	1.9 (1.6–2.3)	SIR adjusted for age, sex and race	From 4-27 months post AIDS

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Clifford et al., (2005), Switzerland	7304 people with an HIV or AIDS diagnosis, 7 hospitals 1985–2002.	Probabilistic linkage with cancer registry data	14	3.2 (1.7–5.4)	SIR adjusted for age and sex	3 months after study entry to 1996–2002. No association with CD4 at entry, nor with HAART use. Highest in IDU (SIR 13) than in other risk groups.
Newnham et al., (2005), England.	33 190 people registered with HIV, 1985–2001, Thames region.	Probabilistic linkage with cancer registry data	39	2.2 (1.6–3.1)	SIR adjusted for age and sex	From HIV diagnosis to end 2001.
Engels et al., (2006), USA.	375 933 adults registered with AIDS, 1980–2002, 11 regions	Probabilistic linkage with cancer registry data	393	2.5 (1.9–3.3), 1980–1989 2.6 (2.1–3.1), 1996–2002	SIR adjusted for age, sex, race, year, and region.	From 4 to 27 months post AIDS No risk change over time
Mbulaiteye et al., (2006), Uganda	12 607 People registered with TASO, 1988–2002.	Probabilistic linkage with cancer registry data	3	5.0 (1.0-15)	SIR adjusted for age and sex and year	From 4 to 60 months after registration with TASO
Chaturvedi et al., (2007), United-States	397 927 people registered with AIDS, 1980–2002, 11 regions	Probabilistic linkage with cancer registry data	1489; 393 in the 4-27 months post-AIDS	3.8 (3.6–4.1), overall; 2.9 (2.6–3.2), 4–27 post-AIDS months	SIR adjusted for age and sex	SIR highest among young (10.4, 15–29 years); no association with CD4 count.
Galceran et al., (2007), Spain	1659 adults registered with AIDS, 1981–1999	Probabilistic linkage with cancer registry data	4 (men)	3.88 (1.01–10.02)	SIR adjusted for age and sex and province	From 60 months before to 60 months after AIDS.
Grulich et al., (2007a), 6 countries	444 172 people with HIV or AIDS, 1980–2002	Probabilistic linkage with cancer registry data	1016	2.72 (1.91–3.87)	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	86	2.6 (2.1–3.2)	SIR adjusted for age, sex, race and differential survival	From 5 years pre-AIDS.
Serraino et al., (2007), Italy	8074 people with HIV in France (DMI-2; 6072) and Italy (ISS; 2002)	Cancer diagnoses during follow up.	14	1.7 (0.9–2.8)	Age and sex	
Engels et al., (2008), USA	57 350 people registered with HIV, 1991–2002	Probabilistic linkage with cancer registry data (Colorado, Florida, NJ)	109	2.6 (2.1–3.1)	SIR adjusted for sex, age, year, region.	4–60 months after HIV registration

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Long et al., (2008), USA	2566 patients with HIV in Baltimore (Johns Hopkins cohort), 1996–2005.	Matching with cancer registry.	29	5.5 (3.7–8.0)	SIR adjusted for age, race, sex, and year.	Incidence fell from >5/1000 py in 1996 to 1/1000 py in 2005 (p = 0.012)
Patel et al., (2008), USA	54 780 people with HIV in the US (HOPS/ASD study)	Clinical diagnosis of cancer, compared to SEER rates	Not available	3.3 (2.8–3.9)	Directly standardised RR, adjusted for age, race and sex	From HIV diagnosis to death or end of study (2003).
Dal Maso et al., (2009), Italy	22 065 people with AIDS	Probabilistic linkage with cancer registry data	59	4.1 (2.9–5.5) in 1997–2004	SIR adjusted for age, sex, area and period	SIR was highest in young adults (<35 years) (18.3)

¹ None of the studies were adjusted for smoking.