

Table 2.25 Cohort studies of HIV and cancers in transplant recipients

Reference, location, name of study	Cohort description	Detection method	No. of cases	Relative risk (95% CI)	Adjustment for potential confounders	Comments
<i>Non-Hodgkin lymphoma</i>						
Birkeland et al., (2000), Denmark	1821 kidney transplant recipients	Linkage with cancer registry data	Men 6 Women 2	6.4 (2.3–13.8) 3.9 (0.4–14.0)	Age, sex, year.	
Adami et al. (2003), Sweden	5931 solid organ recipients (84.3% kidney)	Linkage with cancer registry data	45	6.0 (4.4–8.0)	Age, sex, year	
Kasiske et al., (2004), USA	35,765 kidney transplant recipients	Linkage with Medicare billing claims	Not presented	Year 1: Men, 40.1; women, 42.5	Age	Not based on cancer register data. Not formal SIRs, no CIs presented. RR declined to 15.7 in year 2 and 6.9 in year 3 (males) and 21.5 and 29.1 (females)
Vajdic et al., (2006), Australia	28,855 people undergoing treatment for ESRD, 10,180 transplanted	Linkage with cancer registry data	155 (post-T)	9.86 (8.37–11.54)	Age, sex, year, region	Risk increased only marginally prior to transplant
Grulich et al., (2007a), 5 countries	31,977 people with organ transplants, 1980–2002	Probabilistic linkage with cancer registry data	333	8.07 (6.40–10.2)	Meta-SIR, adjusted for age and sex	Meta-analysis.
Serraino et al., (2007), Italy	2,875 solid organ transplant recipients (64% kidney; 25% heart and/or lung; 11% liver)	Cancer diagnoses during follow up.	42	11.1, (8.0–15.0) Kidney, 6.7 (3.8–11) Liver, 16.4 (5.3–38) Heart/lung, 17.9 (11.2–27)	Age and sex	No relationship with time since trnplant (teritles , bottom category was ≤ 17 months)
Villeneuve et al., (2007), Canada	11,155 kidney transplant recipients, 1981–98	Linkage with cancer registry data	125	8.8 (7.4–10.5)	Age, sex, year	SIR 27 in first year, then declined to 5–8. SIRs higher in the young.

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<i>Anal cancer</i>						
Adami et al., (2003), Sweden	5931 solid organ recipients (84.3% kidney)	Linkage with cancer registry data	4	10.3 (2.8–26.3)	Age, sex, year	“SCC of rectum”, actually anus
Vajdic et al. (2006), Australia	28,855 people undergoing treatment for ESRD, 10, 180 transplanted	Linkage with cancer registry data	14 (post-T)	2.76 (1.51–4.64)	Age, sex, year, region	Risk not increased prior to transplant
Serraino et al., (2007), Italy	2,875 solid organ transplant recipients (64% kidney; 25% heart and/or lung; 11% liver)	Cancer diagnoses during follow up.		0 na	Age and sex	
Grulich et al., (2007a), 5 countries	31,977 people with organ transplants, 1980–2002	Probabilistic linkage with cancer registry data	18	4.85 (1.36–17.3)	Meta-SIR, adjusted for age and sex	Meta-analysis.
<i>Non-melanoma skin cancer</i>						
Birkeland et al., (2000), Denmark	1821 kidney transplant recipients	Linkage with cancer registry data	Men 68 Women 47	13.2 (10.2–16.7) 12.8 (9.4–17.0)		
Kyllönen et al., (2000) Finland	2890 kidney transplant recipients	Linkage with cancer registry		39.1 (29.2–51.3)		
Adami et al., (2003), Sweden	5931 solid organ recipients (84.3% kidney)	Linkage with cancer registry data	278	56.2 (49.8–63.2)	Age, sex, year	
Kasiske et al., (2004), USA	35,765 kidney transplant recipients	Linkage with Medicare billing claims	Not presented	Year 1: 84.0 (men), 59.6 (women)	Age	Not based on cancer register data. Not formal SIRs, no CIs prestmed. RR was 97.2 in year 2 and 90.0 in year 3 (males) and 91.4 and 92.3 (females). Tacrolimus associated with 35% lower incidence (p < 0.0001) and AZA with 17% higher incidence (p = 0.04)

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Grulich et al., (2007a), 5 countries	31,977 people with organ transplants, 1980–2002	Probabilistic linkage with cancer registry data	448	28.6 (9.39–87.2)	Meta-SIR, adjusted for age and sex	Meta-analysis.
<i>Conjunctival cancer</i>						
Vajdic et al., (2007), Australia	10, 180 kidney transplant recipients	Linkage with cancer registry data	5	19.5 (6.3–45.5)	Age, sex, year, region	Also associated with history of SCC and residence in Queensland
<i>Lip cancer</i>						
Kyllönen et al. (2000)		Linkage with cancer registry		23.0 (12.6–38.5)		
Adami et al., (2003), Sweden	5931 solid organ recipients (84.3% kidney)	Linkage with cancer registry data	40	53.3 (38.0–72.5)	Age, sex, year	
Vajdic et al., (2006), Australia,	28,855 people undergoing treatment for ESRD, 10, 180 transplanted	Linkage with cancer registry data	283 (post-T)	47.08 (41.8–52.9)	Age, sex, year, region	Risk increased marginally prior to transplant
Villeneuve et al. (2007), Canada	11,155 kidney transplant recipients, 1981–98	Linkage with cancer registry data	54	31.3 (23.5–40.8)	Age, sex, year	SIR 13.5 in first year, then increased. SIRs higher in the young.
Grulich et al., (2007a), 5 countries	31,977 people with organ transplants, 1980–2002	Probabilistic linkage with cancer registry data	506	30.0 (16.3–55.3)	Meta-SIR, adjusted for age and sex	Meta-analysis.

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Head and neck cancer						
Birkeland et al., (2000), Denmark	1821 kidney transplant recipients	Linkage with cancer registry data	Men 4 Women 4	3.3 (0.90–8.5) 12.4 (3.3–31.6)	Age, sex, year	
Adami et al., (2003), Sweden	5931 solid organ recipients (84.3% kidney)	Linkage with cancer registry data	3	3.1 (0.6–9.1)	Age, sex, year	Pharynx (145–146)
Vajdic et al., (2007), Australia	10, 180 kidney transplant recipients	Linkage with cancer registry data	Tongue 20 Mouth 14 Sal gl 8	7.2 (4.4–11.1) 4.6 (2.5–7.7) 7.7 (3.3–12.2)	Age, sex, year, region	Risk marginally increased pre-T
Villeneuve et al., (2007), Canada	11,155 kidney transplant recipients, 1981–98	Linkage with cancer registry data (ICD 141–149)	27	3.1 (2.0–4.5)	Age, sex, year	
Serraino et al., (2007), Italy	2,875 solid organ transplant recipients (64% kidney; 25% heart and/or lung; 11% liver)	Cancer diagnoses during follow up.	12	1.5 (0.8–2.6)	Age and sex	C00–C14 (includes lip)
Grulich et al., (2007a), 5 countries	31,977 people with organ transplants, 1980–2002	Probabilistic linkage with cancer registry data	49	3.23 (2.40–4.35)	Meta-SIR, adjusted for age and sex	Meta-analysis. Oral cavity and pharynx