

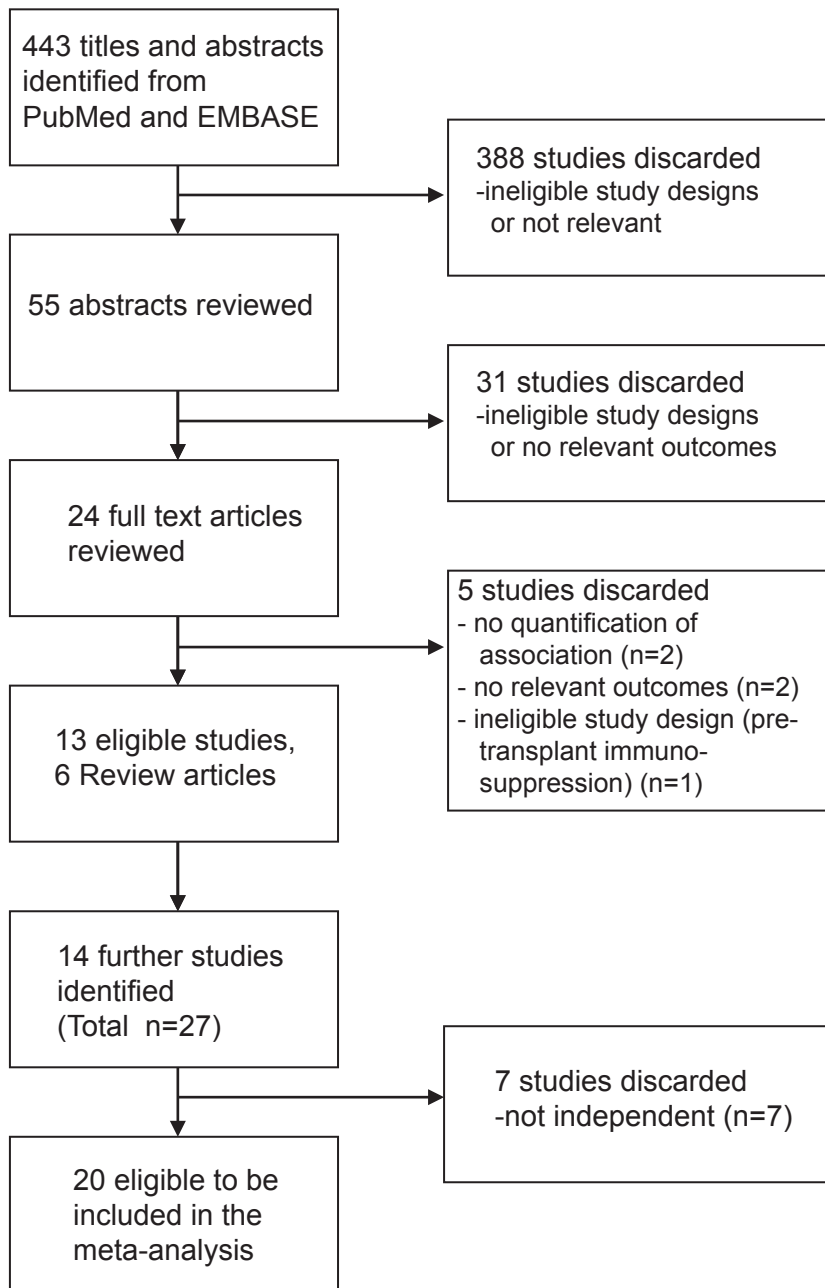


Fig. S1. Flow chart of literature search for studies on the association between solid organ transplantation and risk of melanoma.

Appendix S1

SUPPLEMENTARY MATERIALS AND METHODS

Search strategy to identify cohorts of transplant recipients reporting risk of melanoma.

PubMed

Medical subject headings terms

1. "Melanoma" or "Neoplasms"
2. "Transplants" or "Transplantation"
3. "Cohort Studies" and "Etiology"
4. "Case Reports" or "Editorial" or "Letter" or "Comment" or "Therapeutics" or "Case-Control Studies"

Text terms

1. "cancer"
2. "transplant"
3. "cohort" and "risk"
4. "treatment"

Search String

1 AND 2 AND 3 NOT 4

Limits

Human Studies

Table SI. Characteristics of the 20 studies included in the meta-analysis of organ transplantation and the risk of melanoma

Study (publication year)	Location	Study period	Cohort size	Cohort composition	Cases	Comparison population (measure of effect)	Male (%)	Age range	Follow-up (years)
Chatrath et al., 2013	Indiana, United States	1997–2004	534	Liver	3	Indiana population (SIR)	65.0	(mean 49.5)	Mean: 5.7
Ettore et al., 2013	Italy (central and southern)	1990–2008	1,675	Liver	4	Italian population (SIR)	75.5	IQR 46.3–59.2	Median: 5.2
Krynitz et al., 2012	Six transplant centres Sweden	1970–2008	10,476	7,952 kidney 1,221 liver 1,022 heart/lung 44 pancreas 238 multiple organ 9 small bowel	51	Swedish population (SIR)	61.7	<20–≥65	Kidney median: 7.9 Heart / lung median: 5.1 Liver median: 4.7
Engels et al., 2011	United States, 13 state/regional cancer registries	1987–2008	175,732	102,654 kidney 37,888 liver 17,593 heart 7,013 lung 10,584 other/multiple	381	US population (SIR)	60.9	0–>65	Mean: 4.4 years
Wigerhof et al., 2011	Netherlands, Leiden university medical centre	1966–2006	1,906	Kidney	10	Dutch population (SMR)	61.6	3.8–77.5	Median: 9.2
Baccarani et al., 2010	Northeastern Italy Two transplant centres, Udine and Padova	1991–2005	417	Liver	2	Italian population (SIR)	69.3	44–57	Median 6.9
Collett et al., 2010	England, Scotland, Wales	1980–2007	37,617	25,104 kidney 6,846 liver 3,609 heart 2,058 lung	68	UK population (SIR)	61.3	0–<60	Median: 16
Jensen et al., 2010	Denmark	1977–2006	5,279	4,010 kidney 426 liver 459 heart 384 lung	8	Danish population (SIR)	62	0–95	Median: 5
Jiang et al., 2010	Canada	1982–1988	1,703	Heart	5	Canadian population (SIR)	82.5	<10–>=60	Mean: 4.8
van Leeuwen et al., 2010	Australia and New Zealand	1982–2003	7,809	Kidney	80	Australian population (SIR)	59.2	NR	Median: 6.9
Aberg et al., 2008	Finland, Helsinki University Hospital	1982–2005	540	Liver	1	Finish population (SIR)	45	<17–>=40	Mean: 6.3
Bastiaannet et al., 2007	Netherlands, University Medical Centre Groningen	1989–2003	1,125	Kidney	1	Population of the northern part of the Netherlands (SIR)	58	0–≥70	Mean: 7.3
Serraino et al., 2007	Italy, 5 cities	1985–2005	2,875	1,829 kidney 724 heart/lung 322 liver	3	Italian population (SIR)	70.1	<35–≥50	Median: 6.5
Villeneuve et al., 2007	Canada	1981–1988	11,115	Kidney	20	Canadian population (SIR)	63.2	<10–≥70	Mean: 7.3
Moloney et al., 2006	Ireland	1994–2001	1,755	Kidney	5	Irish population (SIR)	64	<30–≥60	Median: 5.7
Hollenbeak et al., 2005	United States	1988–1998	89,786	Kidney	246	US population (SIR)	60.2	0–>80	Mean: 3.9
Leveque et al., 2000	France, University hospital centres	1971–1997	12,477	Kidney	17	French population (SIR)	36.2	NS	Mean: 5
Jensen et al., 1999	Norway	1963–1992	2,561	2,393 kidney 164 heart	12	Norwegian population (SIR)	34.6	0.8–82.5	Kidney median: 4.8 Heart median: 3.5
Jain et al., 1998	United States, single clinic	1982–1992	1,000	Liver	2	US population (SIR)	60	NS	Mean: 6.5
Bouwes Bavinck et al., 1996	Australia, Brisbane	1969–1994	1098	Kidney	8	Queensland population (SIR)	57.2	NS	Median: 8.9

IQR: inter-quartile range; SIR: standardized incidence ratio; SMR: standardized morbidity ratio.

Table SIII. Assessment of the quality of the 20 studies included in the meta-analysis of solid organ transplantation and risk of melanoma

First author, year	Melanoma diagnosis (registry/histologically confirmed)	Population based	Duration of follow-up reported (mean or median)	Calculation of person-years described	SIR adjusted for age, sex and time period	Ethnicity taken into account*	Excluded time between graft failure and retransplantation	Total score
Chatrath et al., 2013	1	1	1	1	1	0	1	6
Ettore et al., 2013	1	1	1	0	1	1	1	6
Krynitz et al., 2012	1	1	1	1	1	0	0	5
Engels et al., 2011	1	1	0	1	1	1	1	6
Wisgerhof et al., 2011	1	1	1	0	0	0	0	3
Baccarani et al., 2010	1	1	1	1	1	0	1	6
Collett et al., 2010	1	1	1	1	1	0	0	5
Jensen et al., 2010	0	1	1	1	1	0	0	4
Jiang et al., 2010	1	1	1	1	1	0	1	6
Vanleeuwen et al., 2010	1	1	1	1	1	0	1	6
Aberg et al., 2008	1	1	1	0	1	0	1	5
Bastiaannet et al., 2007	1	1	1	1	0	0	0	4
Serraino et al., 2007	1	1	1	1	0	0	0	4
Villeneuve et al., 2007	1	1	0	1	1	0	0	4
Moleny et al., 2006	1	1	1	1	1	0	0	5
Hollenbeak et al., 2005	0	1	1	1	1	1	0	5
Leveque et al., 2000	1	1	1	0	1	0	0	4
Jensen et al., 1999	1	1	1	0	1	0	0	4
Jain et al., 1998	1	0	1	1	1	1	1	6
Bouwes Bavinck et al., 1996	1	1	0	1	0	1	1	5

*includes adjusted for ethnicity or analyses in white-only population.