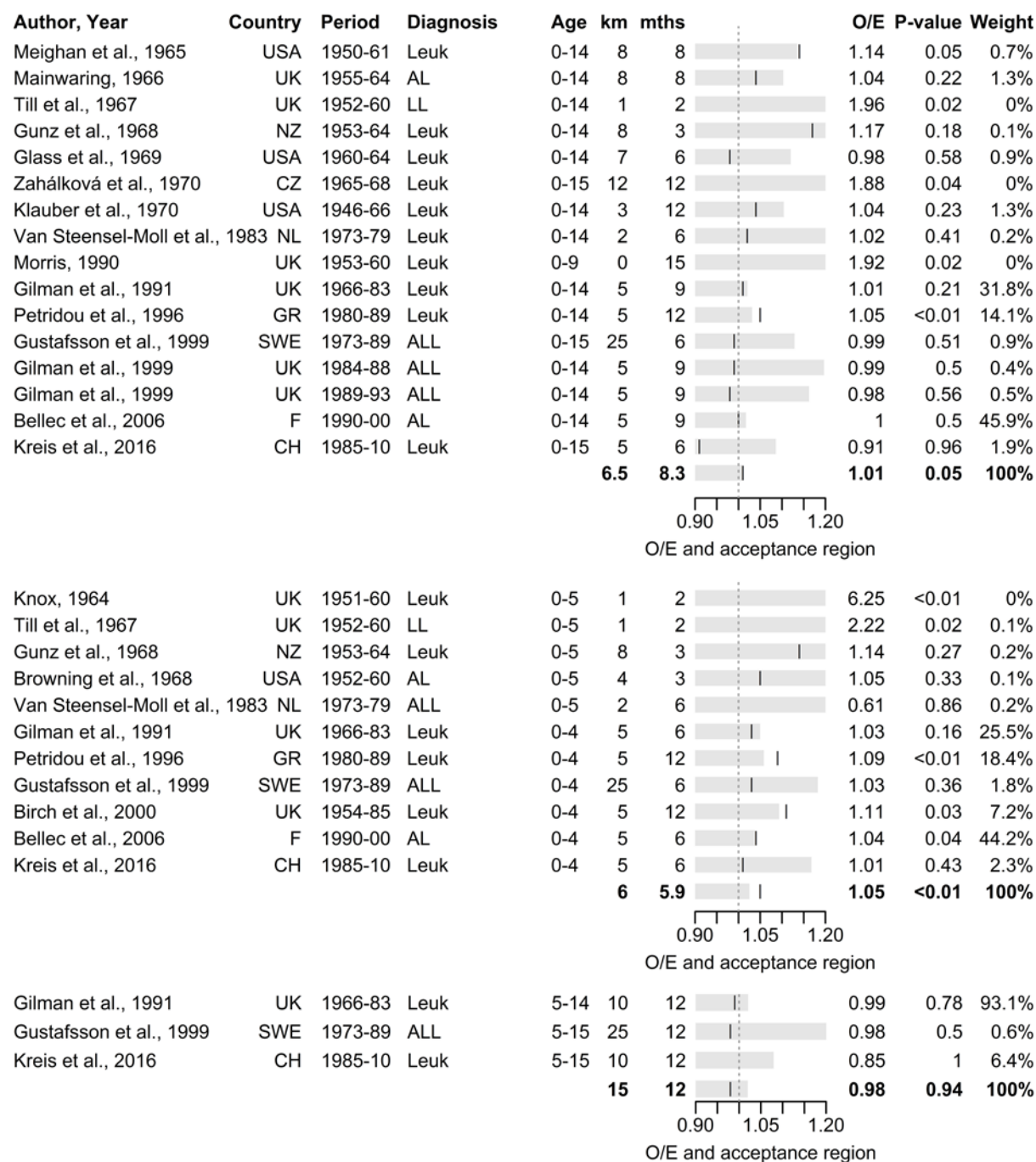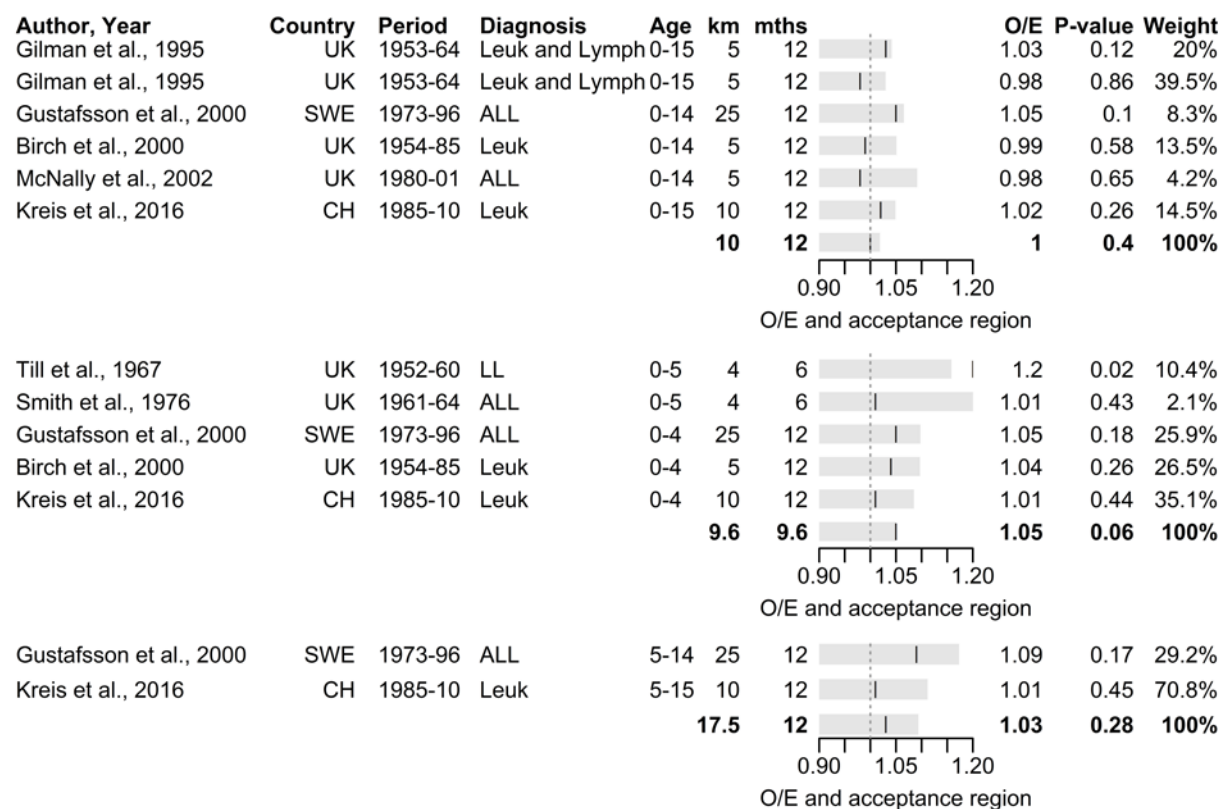**Figure S1** Pooled analysis of space-time clustering studies of childhood **leukaemia** for place and time of **diagnosis** for children aged **0-15 years** (top), **0-5 years** (middle) and **5-15 years** (bottom): Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Meighan et al., 1965	USA	1950-61	Leuk	0-14	8	8		1.14	0.05	0.7%
Mainwaring, 1966	UK	1955-64	AL	0-14	8	8		1.04	0.22	1.3%
Till et al., 1967	UK	1952-60	LL	0-14	1	2		1.96	0.02	0%
Gunz et al., 1968	NZ	1953-64	Leuk	0-14	8	3		1.17	0.18	0.1%
Glass et al., 1969	USA	1960-64	Leuk	0-14	7	6		0.98	0.58	0.9%
Zahálková et al., 1970	CZ	1965-68	Leuk	0-15	12	12		1.88	0.04	0%
Klauber et al., 1970	USA	1946-66	Leuk	0-14	3	12		1.04	0.23	1.3%
Van Steensel-Moll et al., 1983	NL	1973-79	Leuk	0-14	2	6		1.02	0.41	0.2%
Morris, 1990	UK	1953-60	Leuk	0-9	0	15		1.92	0.02	0%
Gilman et al., 1991	UK	1966-83	Leuk	0-14	5	9		1.01	0.21	31.8%
Petridou et al., 1996	GR	1980-89	Leuk	0-14	5	12		1.05	<0.01	14.1%
Gustafsson et al., 1999	SWE	1973-89	ALL	0-15	25	6		0.99	0.51	0.9%
Gilman et al., 1999	UK	1984-88	ALL	0-14	5	9		0.99	0.5	0.4%
Gilman et al., 1999	UK	1989-93	ALL	0-14	5	9		0.98	0.56	0.5%
Bellec et al., 2006	F	1990-00	AL	0-14	5	9		1	0.5	45.9%
Kreis et al., 2016	CH	1985-10	Leuk	0-15	5	6		0.91	0.96	1.9%
					6.5	**8.3**		**1.01**	**0.05**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Knox, 1964	UK	1951-60	Leuk	0-5	1	2		6.25	<0.01	0%
Till et al., 1967	UK	1952-60	LL	0-5	1	2		2.22	0.02	0.1%
Gunz et al., 1968	NZ	1953-64	Leuk	0-5	8	3		1.14	0.27	0.2%
Browning et al., 1968	USA	1952-60	AL	0-5	4	3		1.05	0.33	0.1%
Van Steensel-Moll et al., 1983	NL	1973-79	ALL	0-5	2	6		0.61	0.86	0.2%
Gilman et al., 1991	UK	1966-83	Leuk	0-4	5	6		1.03	0.16	25.5%
Petridou et al., 1996	GR	1980-89	Leuk	0-4	5	12		1.09	<0.01	18.4%
Gustafsson et al., 1999	SWE	1973-89	ALL	0-4	25	6		1.03	0.36	1.8%
Birch et al., 2000	UK	1954-85	Leuk	0-4	5	12		1.11	0.03	7.2%
Bellec et al., 2006	F	1990-00	AL	0-4	5	6		1.04	0.04	44.2%
Kreis et al., 2016	CH	1985-10	Leuk	0-4	5	6		1.01	0.43	2.3%
					6	**5.9**		**1.05**	**<0.01**	**100%**

0.90 1.05 1.20
O/E and acceptance region

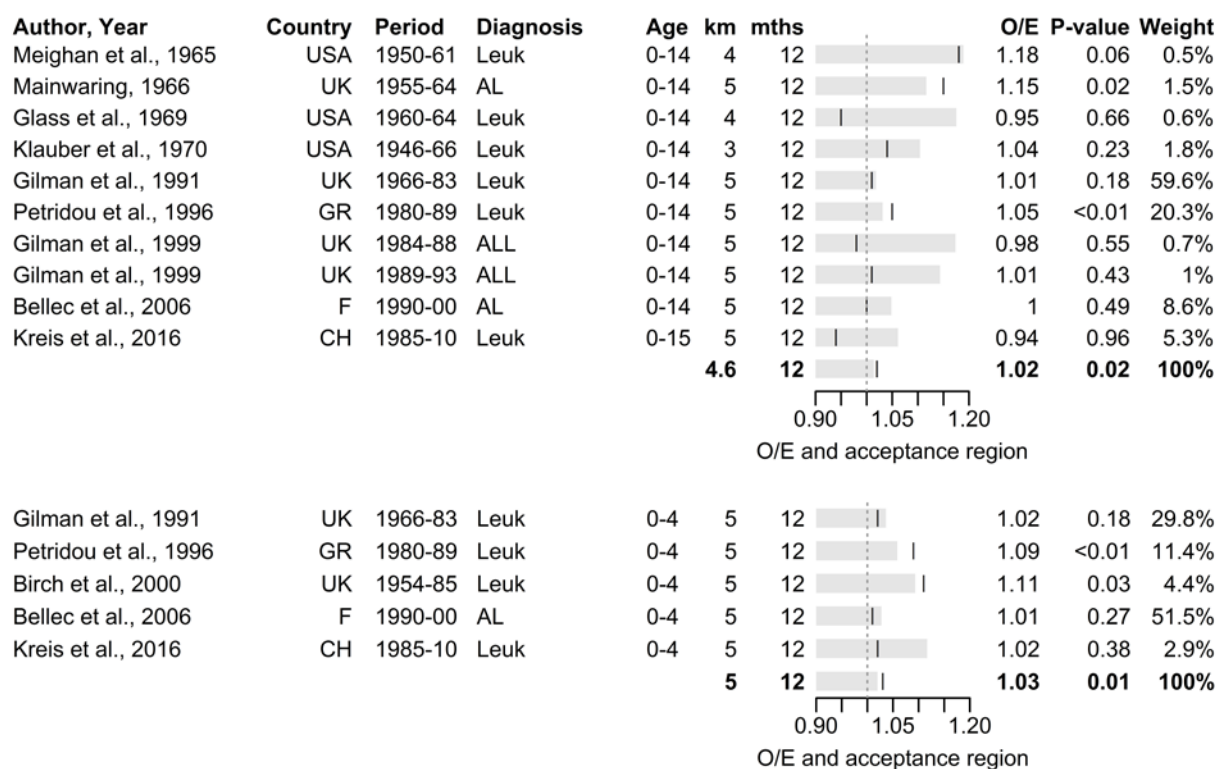|										
Gilman et al., 1991	UK	1966-83	Leuk	5-14	10	12		0.99	0.78	93.1%
Gustafsson et al., 1999	SWE	1973-89	ALL	5-15	25	12		0.98	0.5	0.6%
Kreis et al., 2016	CH	1985-10	Leuk	5-15	10	12		0.85	1	6.4%
					15	**12**		**0.98**	**0.94**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Birch et al, 2000, Gilman & Knox, 1995, Knox & Gilman, 1992 and Pinder, 1985 were excluded from the analysis of children aged 0-15 years because of overlapping study samples.

Figure S2 Pooled analysis of space-time clustering studies of childhood **leukaemia** for place and time of **birth** for children aged **0-15 years** (top), **0-5 years** (middle) and **5-15 years** (bottom): Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Gilman et al., 1995	UK	1953-64	Leuk and Lymph	0-15	5	12		1.03	0.12	20%
Gilman et al., 1995	UK	1953-64	Leuk and Lymph	0-15	5	12		0.98	0.86	39.5%
Gustafsson et al., 2000	SWE	1973-96	ALL	0-14	25	12		1.05	0.1	8.3%
Birch et al., 2000	UK	1954-85	Leuk	0-14	5	12		0.99	0.58	13.5%
McNally et al., 2002	UK	1980-01	ALL	0-14	5	12		0.98	0.65	4.2%
Kreis et al., 2016	CH	1985-10	Leuk	0-15	10	12		1.02	0.26	14.5%
					10	12		1	0.4	100%

0.90 1.05 1.20
O/E and acceptance region

Till et al., 1967	UK	1952-60	LL	0-5	4	6		1.2	0.02	10.4%
Smith et al., 1976	UK	1961-64	ALL	0-5	4	6		1.01	0.43	2.1%
Gustafsson et al., 2000	SWE	1973-96	ALL	0-4	25	12		1.05	0.18	25.9%
Birch et al., 2000	UK	1954-85	Leuk	0-4	5	12		1.04	0.26	26.5%
Kreis et al., 2016	CH	1985-10	Leuk	0-4	10	12		1.01	0.44	35.1%
					9.6	9.6		1.05	0.06	100%

0.90 1.05 1.20
O/E and acceptance region

Gustafsson et al., 2000	SWE	1973-96	ALL	5-14	25	12		1.09	0.17	29.2%
Kreis et al., 2016	CH	1985-10	Leuk	5-15	10	12		1.01	0.45	70.8%
					17.5	12		1.03	0.28	100%

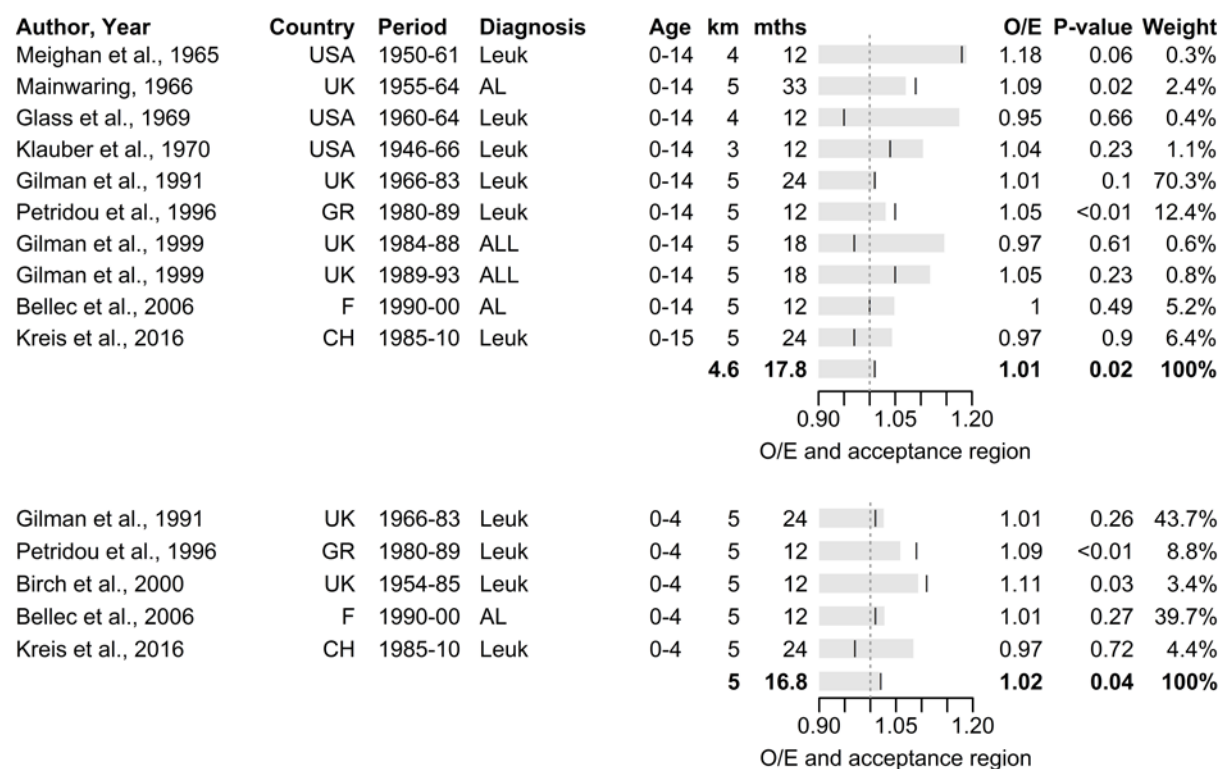0.90 1.05 1.20
O/E and acceptance region

Morris, 1990 was excluded from the analysis of children aged 0-15 years because of overlapping study samples. Smith et al, 1976 (sub-period 1952-59) was excluded from the analysis of children aged 0-5 years because of overlapping study samples.

Figure S3 Pooled analysis of space-time clustering studies of childhood **leukaemia** for place and time of **diagnosis** for children aged **0-15 years** (top) and **0-5 years** (bottom) for spatial lags of **3-7 km** and temporal lags of **6-18 months**: Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths	O/E	P-value	Weight
Meighan et al., 1965	USA	1950-61	Leuk	0-14	4	12	1.18	0.06	0.5%
Mainwaring, 1966	UK	1955-64	AL	0-14	5	12	1.15	0.02	1.5%
Glass et al., 1969	USA	1960-64	Leuk	0-14	4	12	0.95	0.66	0.6%
Klauber et al., 1970	USA	1946-66	Leuk	0-14	3	12	1.04	0.23	1.8%
Gilman et al., 1991	UK	1966-83	Leuk	0-14	5	12	1.01	0.18	59.6%
Petridou et al., 1996	GR	1980-89	Leuk	0-14	5	12	1.05	<0.01	20.3%
Gilman et al., 1999	UK	1984-88	ALL	0-14	5	12	0.98	0.55	0.7%
Gilman et al., 1999	UK	1989-93	ALL	0-14	5	12	1.01	0.43	1%
Bellec et al., 2006	F	1990-00	AL	0-14	5	12	1	0.49	8.6%
Kreis et al., 2016	CH	1985-10	Leuk	0-15	5	12	0.94	0.96	5.3%
					4.6	**12**	**1.02**	**0.02**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths	O/E	P-value	Weight
Gilman et al., 1991	UK	1966-83	Leuk	0-4	5	12	1.02	0.18	29.8%
Petridou et al., 1996	GR	1980-89	Leuk	0-4	5	12	1.09	<0.01	11.4%
Birch et al., 2000	UK	1954-85	Leuk	0-4	5	12	1.11	0.03	4.4%
Bellec et al., 2006	F	1990-00	AL	0-4	5	12	1.01	0.27	51.5%
Kreis et al., 2016	CH	1985-10	Leuk	0-4	5	12	1.02	0.38	2.9%
					5	**12**	**1.03**	**0.01**	**100%**

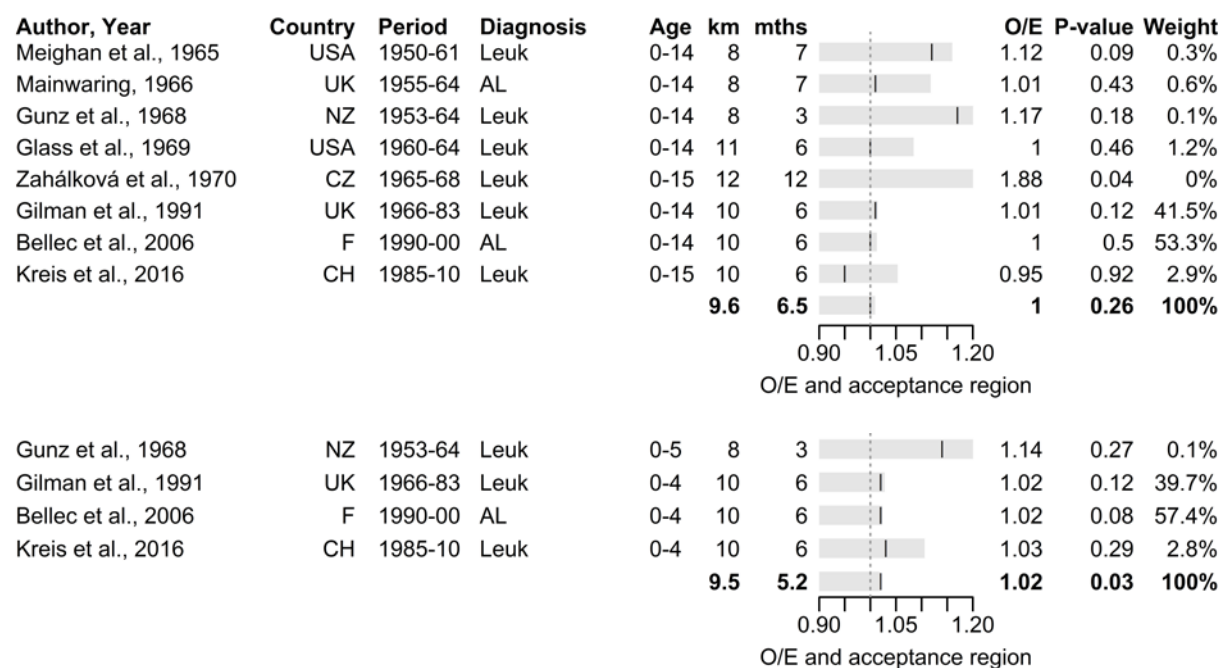0.90 1.05 1.20
O/E and acceptance region

Birch et al, 2000, Gilman & Knox, 1995, Knox & Gilman, 1992 and Pinder, 1985 were excluded from the analysis of children aged 0-15 years because of overlapping study samples.

Figure S4 Pooled analysis of space-time clustering studies of childhood **leukaemia** for place and time of **diagnosis** for children aged **0-15 years** (top) and **0-5 years** (bottom) for spatial lags of **3-7 km** and temporal lags of **12-36 months**: Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Meighan et al., 1965	USA	1950-61	Leuk	0-14	4	12		1.18	0.06	0.3%
Mainwaring, 1966	UK	1955-64	AL	0-14	5	33		1.09	0.02	2.4%
Glass et al., 1969	USA	1960-64	Leuk	0-14	4	12		0.95	0.66	0.4%
Klauber et al., 1970	USA	1946-66	Leuk	0-14	3	12		1.04	0.23	1.1%
Gilman et al., 1991	UK	1966-83	Leuk	0-14	5	24		1.01	0.1	70.3%
Petridou et al., 1996	GR	1980-89	Leuk	0-14	5	12		1.05	<0.01	12.4%
Gilman et al., 1999	UK	1984-88	ALL	0-14	5	18		0.97	0.61	0.6%
Gilman et al., 1999	UK	1989-93	ALL	0-14	5	18		1.05	0.23	0.8%
Bellec et al., 2006	F	1990-00	AL	0-14	5	12		1	0.49	5.2%
Kreis et al., 2016	CH	1985-10	Leuk	0-15	5	24		0.97	0.9	6.4%
					4.6	**17.8**		**1.01**	**0.02**	**100%**

0.90 1.05 1.20
O/E and acceptance region

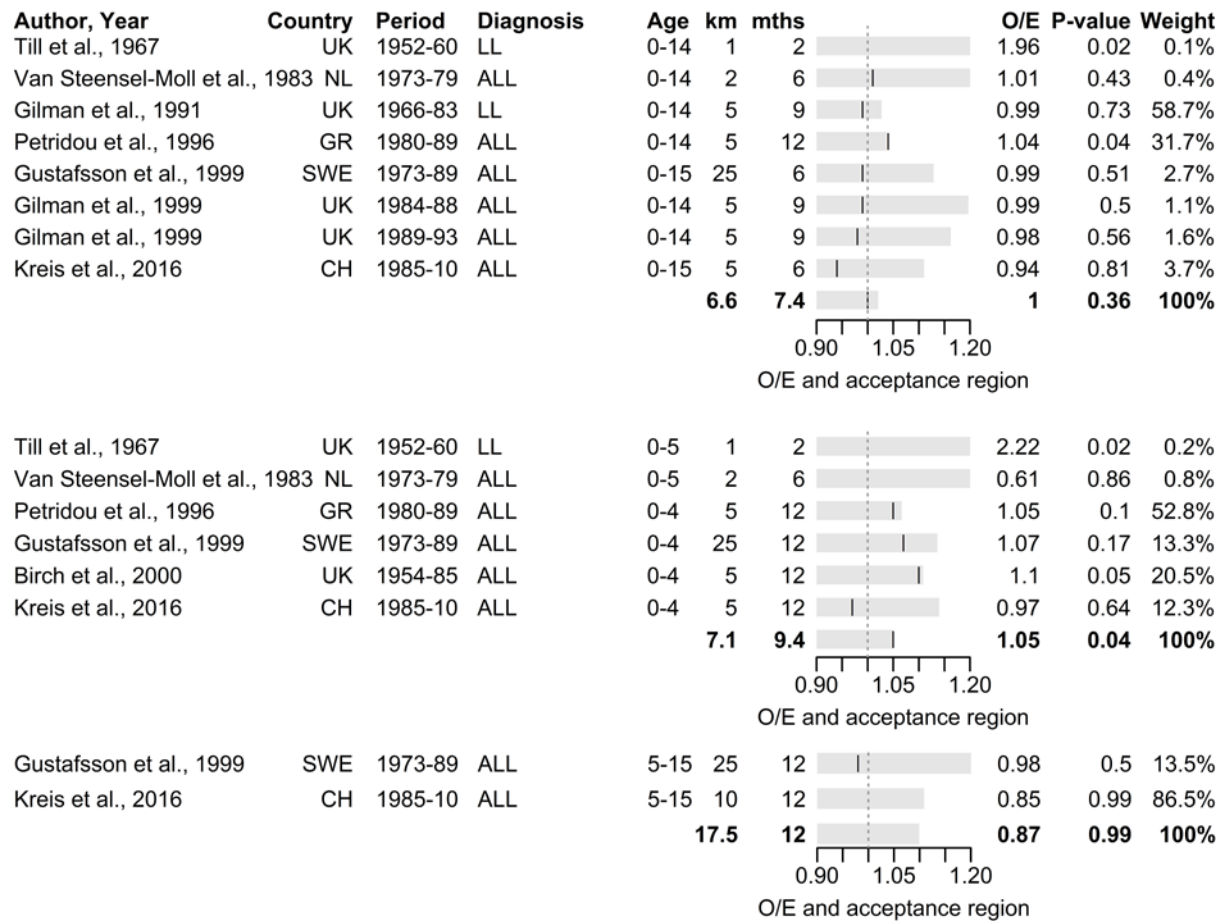| Gilman et al., 1991	UK	1966-83	Leuk	0-4	5	24		1.01	0.26	43.7%
Petridou et al., 1996	GR	1980-89	Leuk	0-4	5	12		1.09	<0.01	8.8%
Birch et al., 2000	UK	1954-85	Leuk	0-4	5	12		1.11	0.03	3.4%
Bellec et al., 2006	F	1990-00	AL	0-4	5	12		1.01	0.27	39.7%
Kreis et al., 2016	CH	1985-10	Leuk	0-4	5	24		0.97	0.72	4.4%
					5	**16.8**		**1.02**	**0.04**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Birch et al, 2000, Gilman & Knox, 1995, Knox & Gilman, 1992 and Pinder, 1985 were excluded from the analysis of children aged 0-15 years because of overlapping study samples.

Figure S5 Pooled analysis of space-time clustering studies of childhood **leukaemia** for place and time of **diagnosis** for children aged **0-15 years** (top) and **0-5 years** (bottom) for spatial lags of **7-15 km** and temporal lags of **0-12 months**: Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Meighan et al., 1965	USA	1950-61	Leuk	0-14	8	7		1.12	0.09	0.3%
Mainwaring, 1966	UK	1955-64	AL	0-14	8	7		1.01	0.43	0.6%
Gunz et al., 1968	NZ	1953-64	Leuk	0-14	8	3		1.17	0.18	0.1%
Glass et al., 1969	USA	1960-64	Leuk	0-14	11	6		1	0.46	1.2%
Zahálková et al., 1970	CZ	1965-68	Leuk	0-15	12	12		1.88	0.04	0%
Gilman et al., 1991	UK	1966-83	Leuk	0-14	10	6		1.01	0.12	41.5%
Bellec et al., 2006	F	1990-00	AL	0-14	10	6		1	0.5	53.3%
Kreis et al., 2016	CH	1985-10	Leuk	0-15	10	6		0.95	0.92	2.9%
					9.6	**6.5**		**1**	**0.26**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Gunz et al., 1968	NZ	1953-64	Leuk	0-5	8	3		1.14	0.27	0.1%
Gilman et al., 1991	UK	1966-83	Leuk	0-4	10	6		1.02	0.12	39.7%
Bellec et al., 2006	F	1990-00	AL	0-4	10	6		1.02	0.08	57.4%
Kreis et al., 2016	CH	1985-10	Leuk	0-4	10	6		1.03	0.29	2.8%
					9.5	**5.2**		**1.02**	**0.03**	**100%**

0.90 1.05 1.20
O/E and acceptance region

Birch et al, 2000, Gilman & Knox, 1995, Knox & Gilman, 1992 and Pinder, 1985 were excluded from the analysis of children aged 0-15 years because of overlapping study samples.

Figure S6 Pooled analysis of space-time clustering studies of childhood **ALL** for place and time of **diagnosis** for children aged **0-15 years** (top), **0-5 years** (middle) and **5-15 years** (bottom): Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level

Author, Year	Country	Period	Diagnosis	Age	km	mths	O/E	P-value	Weight
Till et al., 1967	UK	1952-60	LL	0-14	1	2	1.96	0.02	0.1%
Van Steensel-Moll et al., 1983	NL	1973-79	ALL	0-14	2	6	1.01	0.43	0.4%
Gilman et al., 1991	UK	1966-83	LL	0-14	5	9	0.99	0.73	58.7%
Petridou et al., 1996	GR	1980-89	ALL	0-14	5	12	1.04	0.04	31.7%
Gustafsson et al., 1999	SWE	1973-89	ALL	0-15	25	6	0.99	0.51	2.7%
Gilman et al., 1999	UK	1984-88	ALL	0-14	5	9	0.99	0.5	1.1%
Gilman et al., 1999	UK	1989-93	ALL	0-14	5	9	0.98	0.56	1.6%
Kreis et al., 2016	CH	1985-10	ALL	0-15	5	6	0.94	0.81	3.7%
					6.6	7.4	1	0.36	100%

0.90   1.05   1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths	O/E	P-value	Weight
Till et al., 1967	UK	1952-60	LL	0-5	1	2	2.22	0.02	0.2%
Van Steensel-Moll et al., 1983	NL	1973-79	ALL	0-5	2	6	0.61	0.86	0.8%
Petridou et al., 1996	GR	1980-89	ALL	0-4	5	12	1.05	0.1	52.8%
Gustafsson et al., 1999	SWE	1973-89	ALL	0-4	25	12	1.07	0.17	13.3%
Birch et al., 2000	UK	1954-85	ALL	0-4	5	12	1.1	0.05	20.5%
Kreis et al., 2016	CH	1985-10	ALL	0-4	5	12	0.97	0.64	12.3%
					7.1	9.4	1.05	0.04	100%

0.90   1.05   1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths	O/E	P-value	Weight
Gustafsson et al., 1999	SWE	1973-89	ALL	5-15	25	12	0.98	0.5	13.5%
Kreis et al., 2016	CH	1985-10	ALL	5-15	10	12	0.85	0.99	86.5%
					17.5	12	0.87	0.99	100%

0.90   1.05   1.20
O/E and acceptance region

Birch et al, 2000, Gilman & Knox, 1995, Knox & Gilman, 1992 and Pinder, 1985 were excluded from the analysis of children aged 0-15 years because of overlapping study samples.

Figure S7 Pooled analysis of space-time clustering studies of childhood **ALL** for place and time of **birth** for children aged **0-15 years** (top), **0-5 years** (middle) and **5-15 years** (bottom): Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level
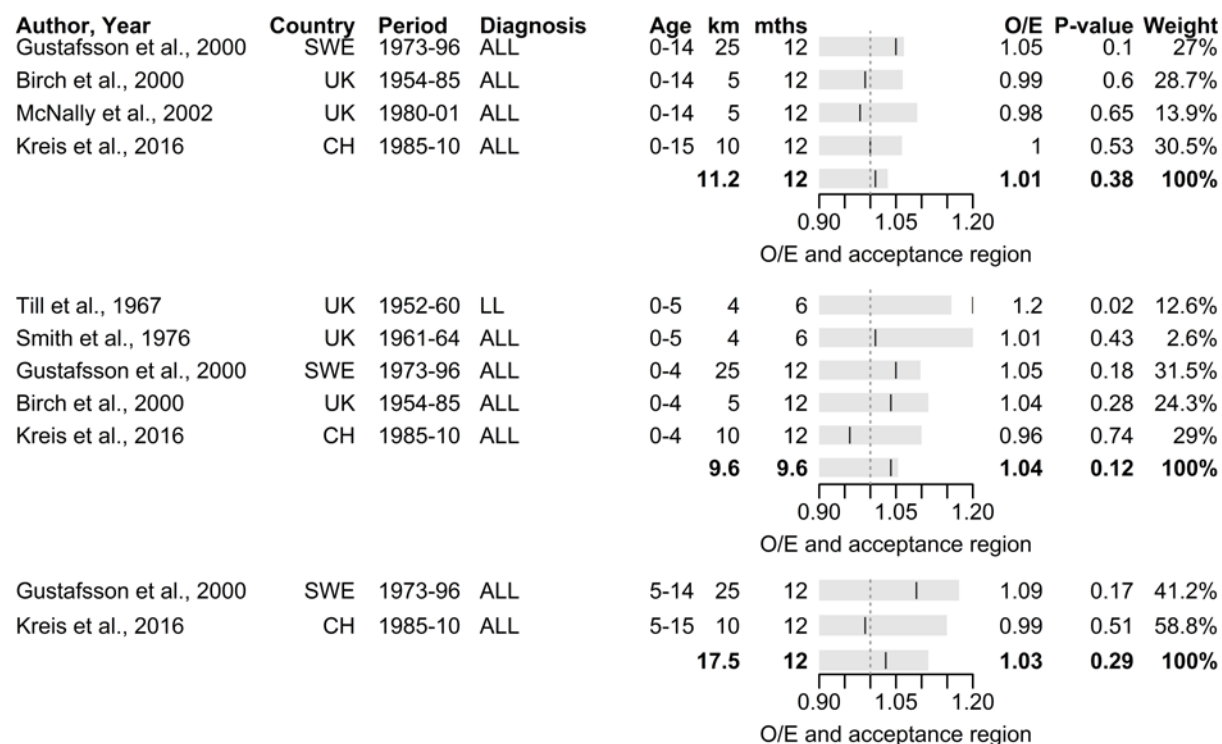
Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Gustafsson et al., 2000	SWE	1973-96	ALL	0-14	25	12		1.05	0.1	27%
Birch et al., 2000	UK	1954-85	ALL	0-14	5	12		0.99	0.6	28.7%
McNally et al., 2002	UK	1980-01	ALL	0-14	5	12		0.98	0.65	13.9%
Kreis et al., 2016	CH	1985-10	ALL	0-15	10	12		1	0.53	30.5%
					11.2	**12**		**1.01**	**0.38**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Till et al., 1967	UK	1952-60	LL	0-5	4	6		1.2	0.02	12.6%
Smith et al., 1976	UK	1961-64	ALL	0-5	4	6		1.01	0.43	2.6%
Gustafsson et al., 2000	SWE	1973-96	ALL	0-4	25	12		1.05	0.18	31.5%
Birch et al., 2000	UK	1954-85	ALL	0-4	5	12		1.04	0.28	24.3%
Kreis et al., 2016	CH	1985-10	ALL	0-4	10	12		0.96	0.74	29%
					9.6	**9.6**		**1.04**	**0.12**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Gustafsson et al., 2000	SWE	1973-96	ALL	5-14	25	12		1.09	0.17	41.2%
Kreis et al., 2016	CH	1985-10	ALL	5-15	10	12		0.99	0.51	58.8%
					17.5	**12**		**1.03**	**0.29**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Figure S8 Pooled analysis of space-time clustering studies of childhood **lymphoma** for place and time of **diagnosis** (top) and **birth** (upper middle), **CNS tumours** for place and time of **diagnosis** (lower middle) and for **neuroblastomas** for place and time of **birth** (bottom): Forrest plot of ratio of observed over expected number of close pairs of cases (O/E) and acceptance region for one-sided Knox test assuming Poisson distribution at 5% alpha-level
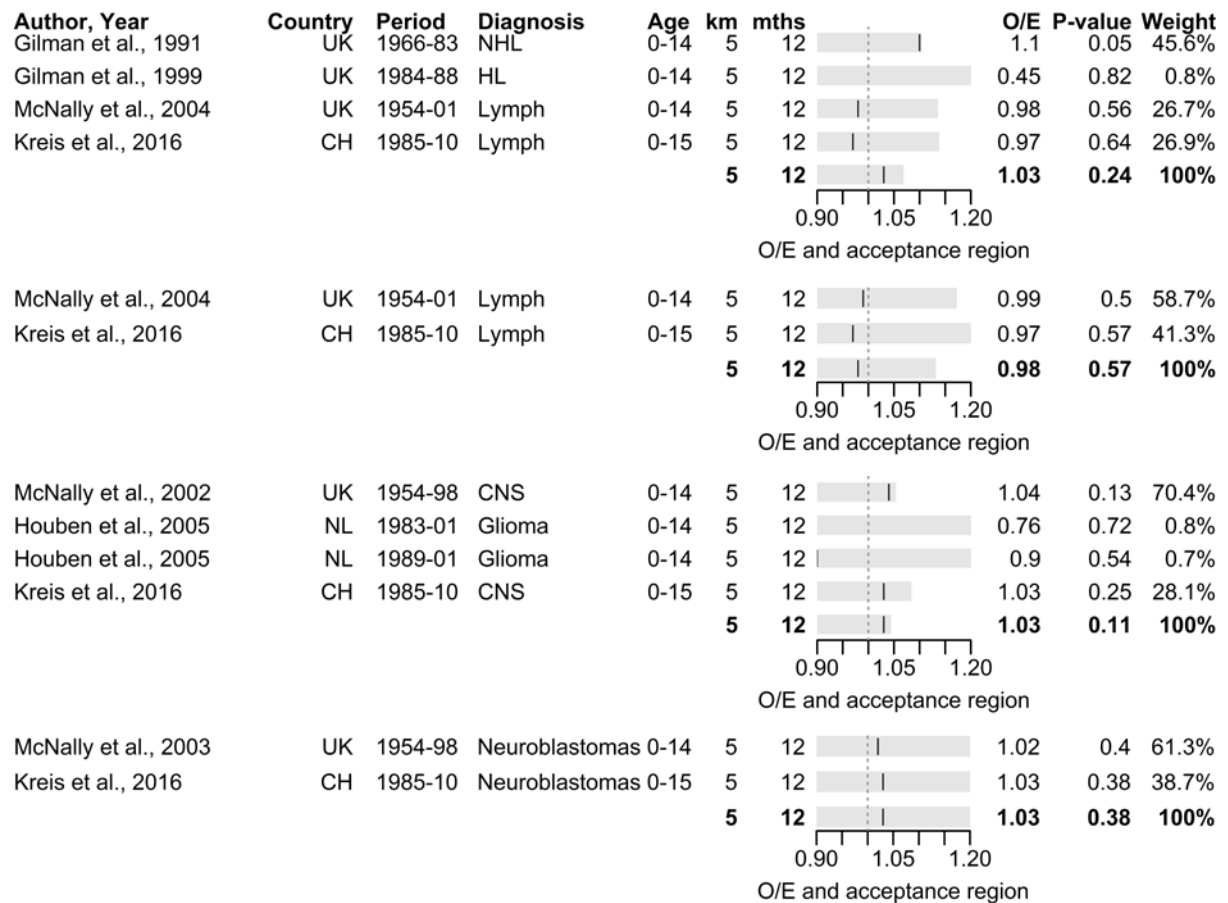

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
Gilman et al., 1991	UK	1966-83	NHL	0-14	5	12		1.1	0.05	45.6%
Gilman et al., 1999	UK	1984-88	HL	0-14	5	12		0.45	0.82	0.8%
McNally et al., 2004	UK	1954-01	Lymph	0-14	5	12		0.98	0.56	26.7%
Kreis et al., 2016	CH	1985-10	Lymph	0-15	5	12		0.97	0.64	26.9%
					5	**12**		**1.03**	**0.24**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
McNally et al., 2004	UK	1954-01	Lymph	0-14	5	12		0.99	0.5	58.7%
Kreis et al., 2016	CH	1985-10	Lymph	0-15	5	12		0.97	0.57	41.3%
					5	**12**		**0.98**	**0.57**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
McNally et al., 2002	UK	1954-98	CNS	0-14	5	12		1.04	0.13	70.4%
Houben et al., 2005	NL	1983-01	Glioma	0-14	5	12		0.76	0.72	0.8%
Houben et al., 2005	NL	1989-01	Glioma	0-14	5	12		0.9	0.54	0.7%
Kreis et al., 2016	CH	1985-10	CNS	0-15	5	12		1.03	0.25	28.1%
					5	**12**		**1.03**	**0.11**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Author, Year	Country	Period	Diagnosis	Age	km	mths		O/E	P-value	Weight
McNally et al., 2003	UK	1954-98	Neuroblastomas	0-14	5	12		1.02	0.4	61.3%
Kreis et al., 2016	CH	1985-10	Neuroblastomas	0-15	5	12		1.03	0.38	38.7%
					5	**12**		**1.03**	**0.38**	**100%**

0.90   1.05   1.20
O/E and acceptance region

Mangoud et al, 1985 was excluded from the analysis of childhood lymphoma at time of diagnosis because of overlapping study samples.