

Table 1: Childhood cancer cases, population of children, hospitals of first treatment and 5-year survival in six European countries.

Country	Belgium	Bulgaria	Finland	Ireland	The Netherlands	Slovenia	TOTAL
Years of diagnosis	2004-07	2005-07	2000-07	2000-07	2005-07	2000-07	
Population ¹	1.8	1	0.9	1	2.9	0.3	7.9
Cases in the database	1,052	395	714	802	1,152	300	4,415
ICCC diagnostic group selected for survival analysis	798	337	590	669	941	239	3,574
Ia Lymphoid leukemias	268	145	294	234	332	75	1,348
Ib Acute myeloid leukemias	50	21	48	55	68	20	262
Ila Hodgkin lymphomas	63	26	36	43	44	21	233
Ilc Burkitt lymphoma	32	6	8	8	37	6	97
IIla Ependymomas and choroid plexus tumor	31	10	12	19	25	6	103
IIlb Astrocytomas	51	16	9	46	38	23	183
IIlc Intracranial and intraspinal embryonal tumors	47	22	24	33	64	17	207
IIId Other gliomas	30	6	2	28	39	5	110
V Retinoblastoma	40	11	22	23	66	6	168
VIa Nephroblastoma & other epithelial reanal tumours	70	19	58	57	88	21	313
VIIa Hepatoblastoma	4	2	9	14	15	4	48
VIIIa Osteosarcomas	22	11	18	19	30	7	107
VIIIc Ewing tumor	38	6	5	24	28	4	105
IXa Rhabdomyosarcomas	36	20	21	46	44	16	183
IXb Fibrosarcomas	3	4	7	5	12	3	34
Xc Gonadal germ cell tumors	13	12	17	15	11	5	73
Cases with H ²	711	312	585	669	834	233	3,344
- hematologic	368	181	382	340	442	117	1,830
- all solid	343	131	203	329	392	116	1,514
Treated in:							
1 hospital	622	238	549	468	775	173	2825
2 hospitals	81	68	36	160	58	59	462
3-5 hospitals	8	6	0	41	1	1	57
5-year survival	81.8	68.5	84.9	79.2	80.9	80.7	80.3

¹millions²cases with information on hospital

Table 2: Numbers of higher volume hospitals treating childhood cancers, numbers and percentages of cases treated in higher and lower volume hospitals; adjusted risks of dying (RR), their corresponding 95% confidence intervals (95%CI) and p values (p), in higher versus lower volume hospitals in six European countries, by 7 groups of pediatric cancers.

	Number of higher volume hospitals	Cases in lower volume hospitals	Cases in higher volume hospitals	Centralisation in higher volume hospitals (%)	RR ¹	95%CI	p
HEMATOLOGIC							
Belgium	3	154	214	58	0.87	0.51-1.48	0.60
Bulgaria	4	41	140	77	0.75	0.38-1.49	0.42
Finland	5	0	382	100	-		-
Ireland	1	37	303	89	0.66	0.33-1.35	0.26
Netherlands	3	189	253	57	0.67	0.43-1.06	0.09
Slovenia	1	2	115	98	-		-
CNS							
Belgium	5	32	96	75	0.51	0.29-0.91	0.02
Bulgaria	3	20	32	62	0.79	0.38-1.64	0.52
Finland	5	1	45	98	-		-
Ireland	1	58	68	54	1.20	0.71-2.03	0.50
Netherlands	5	11	87	89	0.27	0.12-0.59	0.00
Slovenia	1	1	50	98	-		-
NEPHROBLASTOMA							
Belgium	4	12	55	82	0.73	0.07-7.95	0.79
Bulgaria	3	2	16	89	-		-
Finland	4	4	54	93	-		-
Ireland	1		57	100	-		-
Netherlands	4	3	85	97	-		-
Slovenia	1	1	20	95	-		-
BONE SARCOMA							
Belgium	3	21	36	63	0.81	0.26-2.56	0.72
Bulgaria	2	7	8	53	-		-
Finland	1	10	13	57	-		-
Ireland	1	21	22	51	0.34	0.11-1.04	0.06
Netherlands	5	3	55	95	-		-
Slovenia	1	1	10	91	-		-
SOFT TISSUE							
Belgium	4	13	25	66	n.e. ²		-
Bulgaria	5	13	11	46	1.82	0.27-12.45	0.54
Finland	1	14	14	50	1.13	0.31-4.08	0.86
Ireland	2	10	41	80	-		-
Netherlands	2	23	33	59	1.34	0.39-4.65	0.64
Slovenia	2	1	18	95	-		-

ALL SOLID EXCLUDING CNS

Belgium	3	62	153	71	1.40	0.57-3.45	0.47
Bulgaria	4	32	47	59	0.94	0.41-2.16	0.88
Finland	5	40	117	75	0.87	0.30-2.50	0.80
Ireland	1	39	164	81	1.01	0.46-2.25	0.97
Netherlands	5	39	255	87	0.77	0.28-2.10	0.61
Slovenia	1	3	62	95	0.36	0.03-3.93	0.40

ALL SELECTED CANCERS

Belgium	3	248	463	65	0.82	0.57-1.17	0.27
Bulgaria	4	93	219	70	0.90	0.58-1.38	0.73
Finland	5	41	544	93	0.70	0.25-1.95	0.50
Ireland	1	134	535	80	0.98	0.67-1.44	0.93
Netherlands	5	239	595	71	0.61	0.42-0.88	0.01
Slovenia	1	6	227	97	0.37	0.10-1.31	0.12

¹ Adjusted by age and sex and, for hematologic and all cancers, also case mix

²Not estimable: all cases treated in lower volume hospitals survived

Table 3: Adjusted risks of dying (RR¹), their corresponding 95% confidence interval (95%CI) and p values (p), for higher versus lower volume hospitals and over versus under 30²: pool of six European countries for hematologic, solid, CNS cancers and all selected cancers³

	N	hospital volume category	RR ¹	95%CI	p
HEMATOLOGIC	2075	higher / lower	0.74	0.56 - 0.98	0.03
		over / under 30 ²	0.87	0.65 - 1.16	0.34
CNS	518	higher / lower	0.71	0.52 - 0.98	0.04
		over / under 30 ²	0.69	0.48 - 0.99	0.04
ALL SOLID EXCLUDING CNS	1526	higher / lower	1.00	0.70 - 1.44	0.99
		over / under 30 ²	0.64	0.44 - 0.94	0.02
ALL SELECTED CANCERS	4119	higher / lower	0.83	0.70 - 0.99	0.04
		over / under 30 ²	0.82	0.69 - 0.99	0.04

¹RR adjusted by sex, age, country and case mix

²according to the cut off of the European Standards of Care for Children [3]

