Appendix B

Population-based 5-year survival of children with cancer in England diagnosed 2001 to 2015, by period of diagnosis, grouped according to 'International Classification of Childhood Cancer, Third Edition' (ICCC-3)

Source: National Cancer Registration and Analysis Service, Public Health England, CAS accessed December 2017

95% confidence limits - Lower confidence limit (LCL) and Upper confidence limit (UCL) by period of diagnosis.

Chi-squared test for trend by single year of diagnosis. In the test for trend, brackets around the χ 2 value indicate a negative trend. The test for trend is not reported for diagnostic groups with fewer than 10 deaths.

* = Significant trend with a P-value of <0.05

** = Significant trend with a P-value of <0.01

*** = Significant trend with a P-value of <0.001

~ = Trend not reported because fewer than 10 deaths

x = Not a significant trend

Diagnostic group	No. of cases	Diagnosis period												χ^2 (1df) for trend	
		2001-2005			2006-2010			2011-2015			2001-2015				
		%	LCL	UCL	%	LCL	UCL	%	LCL	UCL	%	LCL	UCL		
All cancers combined*	**21,128**	**78%**	*77%*	*79%*	**82%**	*81%*	*83%*	**84%**	*83%*	*85%*	**81%**	*81%*	*82%*	**70.63**	***
I Leukaemias, myeloproliferative diseases, and myelodysplastic diseases	6,507	**83%**	*82%*	*85%*	**87%**	*86%*	*89%*	**88%**	*86%*	*90%*	**86%**	*85%*	*87%*	16.17	***
Ia Lymphoid leukaemias	5,071	**88%**	*87%*	*90%*	**92%**	*91%*	*93%*	**92%**	*91%*	*94%*	**91%**	*90%*	*92%*	15.15	***
Ia.1 Precursor cell leukaemias	5,011	**88%**	*87%*	*90%*	**92%**	*91%*	*93%*	**92%**	*91%*	*94%*	**91%**	*90%*	*92%*	14.15	***
Ia.1 Precursor cell leukaemias - aged <1	180	**68%**	*55%*	*78%*	**56%**	*42%*	*68%*	**61%**	*45%*	*73%*	**62%**	*54%*	*69%*	(0.74)	x
Ia.1 Precursor cell leukaemias - aged 1-14	4,735	**89%**	*88%*	*91%*	**93%**	*92%*	*94%*	**94%**	*92%*	*95%*	**92%**	*91%*	*93%*	17.05	***
Ia.2 Mature B-cell leukaemias	48	-	-	-	-	-	-	-	-	-	**85%**	*72%*	*93%*	~	
Ib Acute myeloid leukaemias	1,015	**66%**	*61%*	*71%*	**65%**	*59%*	*70%*	**71%**	*66%*	*76%*	**67%**	*64%*	*70%*	0.51	x
Ic Chronic myeloproliferative diseases	139	**81%**	*66%*	*89%*	**91%**	*78%*	*97%*	**95%**	*82%*	*99%*	**88%**	*82%*	*93%*	6.51	*
Ic (subset) Chronic myeloid leukaemia	95	-	-	-	-	-	-	-	-	-	**88%**	*79%*	*94%*	1.66	x

Diagnostic group	No. of cases	Diagnosis period												χ^2 (1df) for trend	
		2001-2005			2006-2010			2011-2015			2001-2015				
		%	LCL	UCL	%	LCL	UCL	%	LCL	UCL	%	LCL	UCL		
Ic (subset) Other chronic myeloproliferative diseases	44	-	-	-	-	-	-	-	-	-	**89%**	*75%*	*95%*	~	
Id Myelodysplastic syndrome and other myeloproliferative diseases	186	**64%**	*52%*	*74%*	**83%**	*69%*	*91%*	**60%**	*44%*	*73%*	**69%**	*62%*	*75%*	0.15	x
Id (subset) Myelodysplastic syndrome	96	-	-	-	-	-	-	-	-	-	**73%**	*62%*	*80%*	1.07	x
Id (subset) Juvenile myelomonocytic leukaemia & chronic myelomonocytic leukaemia	88	-	-	-	-	-	-	-	-	-	**65%**	*54%*	*75%*	(0.01)	x
Ie Unspecified and other specified leukaemias	96	-	-	-	-	-	-	-	-	-	**66%**	*55%*	*75%*	2.30	x
II Lymphomas and reticuloendothelial neoplasms	2,174	**87%**	*84%*	*89%*	**90%**	*88%*	*92%*	**93%**	*91%*	*95%*	**90%**	*89%*	*91%*	11.23	***
IIa Hodgkin lymphoma	952	**95%**	*91%*	*97%*	**95%**	*92%*	*97%*	**97%**	*95%*	*99%*	**95%**	*94%*	*97%*	1.64	x
IIb IIc Non-Hodgkin lymphomas (including Burkitt lymphoma)	1,152	**83%**	*78%*	*86%*	**87%**	*83%*	*90%*	**90%**	*86%*	*92%*	**87%**	*84%*	*88%*	6.38	*
III CNS and miscellaneous intracranial and intraspinal neoplasms	5,227	**71%**	*68%*	*73%*	**74%**	*72%*	*76%*	**75%**	*73%*	*78%*	**73%**	*72%*	*74%*	13.28	***
IIIa Ependymomas and choroid plexus tumour	528	**69%**	*61%*	*76%*	**77%**	*70%*	*82%*	**84%**	*77%*	*89%*	**76%**	*71%*	*79%*	8.71	**
IIIa.1 Ependymomas	389	**71%**	*62%*	*78%*	**74%**	*66%*	*81%*	**82%**	*74%*	*88%*	**74%**	*69%*	*79%*	3.58	x
IIIa.2 (subset) Choroid plexus carcinoma	45	-	-	-	-	-	-	-	-	-	**40%**	*25%*	*54%*	7.15	**
IIIa.2 (subset) Choroid plexus papilloma	94	-	-	-	-	-	-	-	-	-	**97%**	*90%*	*99%*	~	
IIIb Astrocytomas	2,219	**79%**	*76%*	*82%*	**82%**	*79%*	*84%*	**82%**	*79%*	*85%*	**81%**	*79%*	*82%*	0.85	x
IIIc.1 Medulloblastoma	664	**65%**	*59%*	*71%*	**61%**	*54%*	*67%*	**62%**	*53%*	*70%*	**63%**	*59%*	*67%*	(0.00)	x
IIIc.2 Embryonal CNS tumour NOS	145	**24%**	*13%*	*36%*	**39%**	*27%*	*51%*	**54%**	*34%*	*70%*	**36%**	*28%*	*44%*	5.49	*

Diagnostic group	No. of cases	Diagnosis period												χ^2 (1df) for trend	
		2001-2005			2006-2010			2011-2015			2001-2015				
		%	LCL	UCL	%	LCL	UCL	%	LCL	UCL	%	LCL	UCL		
IIIc.4 Atypical teratoid/rhabdoid tumour	141	**17%**	*5%*	*34%*	**21%**	*11%*	*33%*	**25%**	*11%*	*40%*	**25%**	*18%*	*33%*	2.58	x
IIId.1 Oligodendrogliomas	48	-	-	-	-	-	-	-	-	-	**71%**	*55%*	*82%*	0.32	x
IIId.2 Mixed and unspecified gliomas	473	**41%**	*33%*	*48%*	**52%**	*44%*	*60%*	**46%**	*38%*	*55%*	**46%**	*42%*	*51%*	6.90	**
IIIe.1 Pituitary adenomas and carcinomas	69	-	-	-	-	-	-	-	-	-	**100%**	-	-	~	
IIIe.2 Tumours of the sellar region (craniopharyngiomas)	242	**94%**	*86%*	*98%*	**98%**	*90%*	*99%*	**100%**	-	-	**57%**	*42%*	*69%*	9.81	**
IIIe.3 Pineal parenchymal tumours	57	-	-	-	-	-	-	-	-	-	**57%**	*42%*	*69%*	1.36	x
IIIe.4 Neuronal and mixed neuronal-glial tumours	304	**97%**	*90%*	*99%*	**96%**	*90%*	*99%*	**100%**	-	-	**96%**	*93%*	*98%*	(0.30)	x
IIIe.5 Meningiomas	81	-	-	-	-	-	-	-	-	-	**93%**	*85%*	*97%*	~	
IV Neuroblastoma and other peripheral nervous cell tumours	1,268	**64%**	*60%*	*69%*	**66%**	*61%*	*71%*	**71%**	*66%*	*76%*	**67%**	*64%*	*70%*	4.37	*
IVa Neuroblastoma and ganglioneuroblastoma	1,256	**64%**	*59%*	*69%*	**67%**	*62%*	*71%*	**71%**	*66%*	*76%*	**67%**	*64%*	*70%*	4.83	*
IVa Neuroblastoma and ganglioneuroblastoma - aged <1	425	**90%**	*84%*	*94%*	**86%**	*78%*	*91%*	**85%**	*78%*	*90%*	**87%**	*83%*	*90%*	(1.14)	x
IVa Neuroblastoma and ganglioneuroblastoma - aged 1-14	831	**49%**	*43%*	*55%*	**57%**	*51%*	*63%*	**65%**	*58%*	*71%*	**57%**	*53%*	*60%*	13.17	***
V Retinoblastoma	534	**98%**	*95%*	*99%*	**99%**	*96%*	*100%*	**99%**	*96%*	*100%*	**99%**	*98%*	*100%*	~	
V Retinoblastoma: bilateral	171	**98%**	*87%*	*100%*	**100%**	-	-	**98%**	*89%*	*100%*	**99%**	*95%*	*100%*	~	
V Retinoblastoma: unilateral	336	**98%**	*93%*	*100%*	**99%**	*94%*	*100%*	**100%**	-	-	**99%**	*97%*	*100%*	~	
VI Renal tumours	1,206	**83%**	*79%*	*87%*	**89%**	*85%*	*91%*	**88%**	*84%*	*91%*	**87%**	*85%*	*89%*	3.36	x

Diagnostic group	No. of cases	Diagnosis period												χ^2 (1df) for trend	
		2001-2005			2006-2010			2011-2015			2001-2015				
		%	*LCL*	*UCL*	%	*LCL*	*UCL*	%	*LCL*	*UCL*	%	*LCL*	*UCL*		
VIa.1 Nephroblastoma (Wilms Tumour)	1,099	**88%**	*84%*	*91%*	**92%**	*88%*	*94%*	**91%**	*87%*	*94%*	**90%**	*88%*	*92%*	1.49	x
VIa.2 Rhabdoid renal tumour	35	-	-	-	-	-	-	-	-	-	**20%**	*9%*	*34%*	0.03	x
VIa.3 Kidney sarcomas	36	-	-	-	-	-	-	-	-	-	**83%**	*66%*	*92%*	0.17	x
VII Hepatic tumours	267	**65%**	*54%*	*75%*	**77%**	*66%*	*85%*	**77%**	*67%*	*84%*	**73%**	*67%*	*78%*	1.00	x
VIIa Hepatoblastoma	228	**73%**	*61%*	*82%*	**85%**	*74%*	*92%*	**76%**	*66%*	*84%*	**78%**	*72%*	*83%*	(0.00)	x
VIIb Hepatic carcinomas	37	-	-	-	-	-	-	-	-	-	**52%**	*35%*	*67%*	6.59	*
VIII Malignant bone tumours	887	**61%**	*55%*	*67%*	**65%**	*60%*	*70%*	**71%**	*64%*	*77%*	**65%**	*62%*	*68%*	8.21	**
VIIIa Osteosarcomas	481	**53%**	*45%*	*61%*	**61%**	*54%*	*68%*	**71%**	*62%*	*78%*	**60%**	*56%*	*65%*	8.25	**
VIIIc Ewing tumour and related sarcomas of bone	327	**65%**	*56%*	*73%*	**66%**	*56%*	*74%*	**66%**	*53%*	*77%*	**66%**	*61%*	*71%*	1.89	x
IX Soft tissue and other extraosseous sarcomas	1,369	**65%**	*60%*	*69%*	**72%**	*67%*	*76%*	**74%**	*69%*	*78%*	**70%**	*67%*	*73%*	11.21	***
IXa Rhabdomyosarcomas	705	**62%**	*55%*	*68%*	**70%**	*63%*	*75%*	**71%**	*64%*	*77%*	**67%**	*64%*	*71%*	6.18	*
IXb.1 Fibroblastic and myofibroblastic tumours	85	-	-	-	-	-	-	-	-	-	**95%**	*87%*	*98%*	~	
IXb.2 Nerve sheath tumours	50	-	-	-	-	-	-	-	-	-	**57%**	*41%*	*69%*	0.17	x
IXd.1 IXd.2 Extraosseous Ewing sarcoma family tumours	154	**62%**	*49%*	*73%*	**72%**	*57%*	*82%*	**69%**	*41%*	*85%*	**68%**	*60%*	*75%*	4.22	*
IXd.3 Extrarenal rhabdoid tumour	49	-	-	-	-	-	-	-	-	-	**31%**	*18%*	*44%*	(1.13)	x
IXd.7 Synovial sarcomas	78	-	-	-	-	-	-	-	-	-	**89%**	*79%*	*94%*	~	

Diagnostic group	No. of cases	Diagnosis period												χ^2 (1df) for trend	
		2001-2005			2006-2010			2011-2015			2001-2015				
		%	LCL	UCL	%	LCL	UCL	%	LCL	UCL	%	LCL	UCL		
IXa-e (subset) Hepatic sarcomas	42	-	-	-	-	-	-	-	-	-	**55%**	*38%*	*68%*	(0.62)	x
X Germ cell tumours, trophoblastic tumours, and neoplasms of gonads	704	**93%**	*88%*	*95%*	**92%**	*88%*	*95%*	**94%**	*90%*	*97%*	**93%**	*90%*	*94%*	0.00	x
Xa (subset) CNS germinoma	150	**95%**	*84%*	*98%*	**93%**	*81%*	*97%*	**95%**	*82%*	*99%*	**94%**	*89%*	*97%*	(0.00)	x
Xa (subset) Non-germinoma	79	-	-	-	-	-	-	-	-	-	**80%**	*69%*	*87%*	1.48	x
Xb Malignant extracranial and extragonadal germ cell tumours	189	**93%**	*83%*	*97%*	**90%**	*79%*	*95%*	**92%**	*82%*	*97%*	**91%**	*86%*	*94%*	(0.49)	x
Xc Gonadal germ cell tumours: female	181	**94%**	*83%*	*98%*	**98%**	*90%*	*100%*	**98%**	*87%*	*100%*	**97%**	*92%*	*99%*	~	
Xc Gonadal germ cell tumours: male	90	-	-	-	-	-	-	-	-	-	**98%**	*91%*	*99%*	~	
XI Other malignant epithelial neoplasms and malignant melanomas	990	**90%**	*86%*	*93%*	**92%**	*88%*	*95%*	**93%**	*89%*	*95%*	**92%**	*90%*	*93%*	3.11	x
XIa Adrenocortical carcinomas	31	-	-	-	-	-	-	-	-	-	**72%**	*51%*	*85%*	~	
XIb Thyroid carcinomas	180	**98%**	*88%*	*100%*	**100%**	-	-	**92%**	*76%*	*98%*	**98%**	*94%*	*99%*	~	
XIc Nasopharyngeal carcinomas	35	-	-	-	-	-	-	-	-	-	**84%**	*65%*	*93%*	~	
XId Malignant melanomas	143	**78%**	*64%*	*87%*	**91%**	*78%*	*97%*	**88%**	*73%*	*95%*	**85%**	*77%*	*90%*	2.81	x
XII Other and unspecified malignant neoplasms	138	**92%**	*71%*	*98%*	**88%**	*76%*	*94%*	**86%**	*72%*	*94%*	**88%**	*81%*	*93%*	(0.07)	x

* For all cancers combined, only the first primary tumours within the study period were included in the cohort count for people with multiple primary tumours (143 second or third cases were removed). This follows the principle used for survival analysis published by the Office for National Statistics. In the future historical data prior to the study period will be also examined to help identify people with multiple primary tumours.

The number of cases included in this survival analysis differs from the "Childhood cancer survival in England: Children diagnosed from 1990 to 2015 and followed up to 2016 (Experimental Statistics)" National Statistics published by the Office for National Statistics and Public Health England. The cancer cases for the analysis in this report have been classified using ICD-O-3 and with different definitions from those used for the National Statistics. For example cancers of the skin other than melanoma and secondary and unspecified malignant neoplasms were included in our study but were excluded in the National Statistics. The data cleaning process for the analysis in this report also differs from that applied for the National Statistics. For example, validation of historical cases took account of the legacy dataset acquired from the National Registry of Childhood Tumours.