

**Supplementary Table 1 Demographic and treatment characteristics of 2-year survivors of autologous BMT in childhood, by treatment era**

		Entire cohort		Year of BMT						p-value	
				<1990		1990-1999		2000-2010			
		N	%	N	%	N	%	N	%		
Number of patients		345	100.0	74	20.4	129	37.3	142	42.3		
Sex	Male	224	61.9	55	74.3	65	50.4	92	64.8	0.002	
	Female	133	38.6	19	25.7	64	49.6	50	35.2		
Race	Non-Hispanic white	277	76.5	69	93.2	94	72.9	101	71.1	0.002	
	Hispanic	44	12.2	1	1.4	17	13.2	26	18.3		
	Non-Hispanic black	24	6.6	3	4.1	11	8.5	6	4.2		
	Others	10	2.8	1	1.4	5	3.9	4	2.8		
	Unknown	7	1.9	0	0.0	2	1.6	5	3.5		
Age at transplantation, years	0-4	100	27.6	22	29.7	35	27.1	40	28.2	0.1	
	5-9	60	16.6	16	21.6	26	20.2	15	10.6		
	10-14	55	15.2	15	20.3	17	13.2	23	16.2		
	15-21	147	40.6	21	28.4	51	39.5	64	45.1		
Source of stem cells	Bone marrow	164	45.3	71	95.9	84	65.1	8	5.6	<0.0001	
	PBSCs	197	54.4	3	4.1	45	34.9	133	93.7		
	Cord blood	1	0.3	0	0.0	0	0.0	1	0.7		
Primary disease	ALL	43	11.9	34	45.9	9	7.0	0	0.0	<0.0001	
	AML	47	13.0	12	16.2	25	19.4	8	5.6		
	HL	96	26.5	11	14.9	32	24.8	47	33.1		
	NHL	34	9.4	9	12.2	11	8.5	11	7.8		
	Neuroblastoma	83	22.9	7	9.5	31	24.0	41	28.9		
	Other malignant disease <sup>#</sup>	59	16.3	1	1.4	21	16.3	35	24.7		
Conditioning regimen	TBI	124	34.3	49	66.2	52	40.3	23	16.2	<0.0001	
	Etoposide	217	59.9	21	28.4	85	65.9	98	69.0	<0.0001	
	Cyclophosphamide	206	56.9	59	79.7	84	65.1	49	34.5	<0.0001	
	Melphalan	134	37.0	3	4.1	44	34.1	86	60.6	<0.0001	
	Busulfan	82	22.7	11	14.9	23	17.8	41	28.9	0.02	
	Carmustine	78	21.5	14	18.9	23	17.8	39	27.5	0.1	
	Carboplatin	73	20.2	0	0.0	32	24.8	39	27.5	<0.0001	
	Other chemotherapy	143	39.5	56	75.7	41	31.8	46	32.4	<0.0001	
	Other radiotherapy	3	0.8	0	0.0	0	0.0	3	2.1	0.2	
Disease status at transplantation	Standard risk of relapse*	133	37.8	47	63.5	53	41.1	33	23.2	<0.0001	
	High risk of relapse	212	61.5	27	36.5	76	58.9	109	76.8	<0.0001	
Number of deaths		103	28.5	33	44.6	37	28.7	33	23.2	0.005	

\*Standard risk: 1st or 2nd CR after acute leukemia or lymphoma; all others high risk; ALL=acute lymphoblastic leukemia, AML=acute myeloid leukemia, HL=Hodgkin lymphoma, NHL=non-Hodgkin lymphoma, PBSCs=peripheral blood stem cells;

<sup>#</sup>include 25 Ewing sarcomas, 11 Wilms tumor, 9 CNS tumors, 4 desmoplastic small round cell tumors, 6 soft tissue sarcoma, 1 ovarian tumor, 1 hepatoblastoma, 1 multiple myeloma

**Supplementary Table 2 Cause of death among 2-year survivors after autologous BMT in childhood**

		All-cause death		Cause of death													
		N	%	Primary disease		SN		Infection		Cardiac		Pulmonary		Other causes		External causes	
<b>Deceased with a registered COD*</b>		98	100.0	49	50.0	21	21.4	18	18.4	7	7.1	4	4.1	13	13.3	3	3.1
Sex	Male	51	52.0	20	40.8	12	57.1	10	55.6	2	28.6	3	75.0	11	84.6	3	100.0
	Female	47	48.0	29	59.2	9	42.9	8	44.4	5	71.4	1	25.0	2	15.4	0	0.0
Primary diagnosis	ALL	21	21.4	9	18.4	6	28.6	4	22.2	0	0.0	1	25.0	6	46.2	1	33.3
	AML	6	6.1	1	2.0	4	19.1	1	5.6	2	28.6	0	0.0	0	0.0	0	0.0
	HL	20	20.4	6	12.2	7	33.3	5	27.8	2	28.6	1	25.0	3	23.1	0	0.0
	NHL	7	7.1	0	0.0	3	14.3	3	16.7	0	0.0	1	25.0	0	0.0	2	66.7
	Neuroblastoma	24	24.5	18	36.7	1	4.8	4	22.2	0	0.0	0	0.0	3	23.1	0	0.0
	Other malignant disease <sup>#</sup>	20	20.4	15	30.6	0	0.0	1	5.6	3	42.9	1	25.0	1	7.7	0	0.0
Time since BMT (years)	2-9	84	85.7	49	100.0	13	61.9	17	94.4	5	71.4	3	75	10	76.9	0	0.0
	10-14	9	9.2	0	0.0	5	23.8	1	5.6	1	14.3	1	25.0	2	15.4	2	66.7
	15+	5	5.1	0	0.0	3	14.2	0.0	1	14.3	0	0.0	1	7.7	1	33.3	

\*Among 98 of the 103 deceased patients, 115 causes of death were identified as a primary or secondary cause of death in the NDI Plus program. SN=second neoplasm, ALL=acute lymphoblastic leukemia, AML=acute myeloid leukemia, HL=Hodgkin lymphoma, NHL=non-Hodgkin lymphoma; <sup>#</sup>include 25 Ewing sarcomas, 11 Wilms tumor, 9 CNS tumors, 4 desmoplastic small round cell tumors, 6 soft tissue sarcoma, 1 ovarian tumor, 1 hepatoblastoma, 1 multiple myeloma.

**Figure legend Supplementary Figure 1**

Cumulative relapse-related mortality in 2-year survivors of autologous BMT in childhood, by sex and treatment era

# Supplementary Figure 1

