

**Supplementary Table 1.** NRM at one year after alloSCT in different patient age groups over time.

Patient age	1980-89	1990-99	2000-2009	2010-2016
20-40y	28.9% [26.3-31.6]	21.3% [19.7-22.9]	11.3% [10.4-12.2]	8.3% [7.6-9.2]
40-60y	36.5% [29.7-43.4]	29.5% [27.5-31.6]	16.6% [15.7-17.4]	12.6% [11.9-13.4]
> 60y	No patients	25% [13.2-38.6]	19.1% [17.3-21]	16.6% [15.3-17.9]

**Supplementary Table 2.** Results of multivariate analyses.

		TRM		OS		PFS		RI		AGVH II-IV		AGVH III-IV		CGVH		Ext CGVH	
Variable	Level	HR	P	HR	P	HR	P	HR	P	HR	P	HR	P	HR	P	HR	P
Year of transplantat ion (5 years increment)		0.78 [0.77-0.8]	< 0.000 1	0.86 [0.85-0.87]	< 0.000 1	0.89 [0.88-0.9]	< 0.000 1	0.96 [0.94-0.97]	< 0.000 1	0.92 [0.91-0.94]	< 0.000 1	0.9 [0.88-0.93]	< 0.000 1	0.99 [0.97-1]	0.11	1 [0.97-1.02]	0.77
Previous autologous transplantat ion(s)	Reference: Yes																
	No	0.85 [0.77-0.93]	0.001	0.88 [0.82-0.94]	< 0.000 1	0.81 [0.76-0.86]	< 0.000 1	0.79 [0.74-0.85]	< 0.000 1	1.12 [1.02-1.22]	0.014	1.09 [0.96-1.25]	0.19	0.89 [0.82-0.96]	0.003	0.92 [0.82-1.02]	0.12
Cell source	Reference: BM																
	PB	1 [0.94-1.07]	0.96	1.04 [1-1.09]	0.055	1.03 [0.99-1.07]	0.16	1.05 [1-1.11]	0.042	0.88 [0.83-0.92]	< 0.000 1	0.97 [0.9-1.06]	0.55	1.64 [1.56-1.73]	< 0.000 1	1.76 [1.63-1.89]	< 0.000 1
Diagnosis	Reference: ALL																
	AML	0.8 [0.75-0.85]	< 0.000 1	0.83 [0.79-0.87]	< 0.000 1	0.8 [0.77-0.83]	< 0.000 1	0.8 [0.76-0.84]	< 0.000 1	0.85 [0.8-0.89]	< 0.000 1	0.85 [0.78-0.92]	0.000 2	0.95 [0.9-1]	0.04	0.92 [0.85-0.99]	0.03
	Lympho ma	0.85 [0.77-0.93]	0.000 8	0.55 [0.51-0.58]	< 0.000 1	0.6 [0.57-0.64]	< 0.000 1	0.49 [0.46-0.53]	< 0.000 1	0.99 [0.92-1.07]	0.87	1.04 [0.92-1.18]	0.5	0.8 [0.74-0.86]	< 0.000 1	0.79 [0.7-0.88]	< 0.000 1
	MDS / MPN	0.79 [0.72-0.87]	< 0.000 1	0.5 [0.47-0.53]	< 0.000 1	0.51 [0.48-0.54]	< 0.000 1	0.39 [0.36-0.42]	< 0.000 1	0.91 [0.84-0.99]	0.019	1.02 [0.91-1.15]	0.73	0.96 [0.9-1.04]	0.32	1 [0.9-1.11]	1



	No	1.11 [1.04- 1.19]	0.001	0.97 [0.93- 1.01]	0.13	0.91 [0.88- 0.95]	< 0.000 1	0.83 [0.8- 0.87]	< 0.000 1	1.38 [1.31- 1.46]	< 0.000 1	1.47 [1.34- 1.6]	< 0.000 1	1.88 [1.79- 1.98]	< 0.000 1	2.25 [2.09- 2.42]	< 0.000 1
Region of transplantat ion	Refer- ence: North Western Europe																
	Eastern Europe	1.22 [1.09- 1.37]	0.000 6	1.17 [1.09- 1.25]	< 0.000 1	1.15 [1.08- 1.23]	< 0.000 1	1.12 [1.04- 1.22]	0.004	0.9 [0.82- 0.98]	0.023	0.95 [0.82- 1.1]	0.53	0.78 [0.71- 0.86]	< 0.000 1	0.62 [0.53- 0.71]	< 0.000 1
	Southern Europe	1.15 [1.08- 1.21]	< 0.000 1	1.23 [1.18- 1.27]	< 0.000 1	1.24 [1.2- 1.28]	< 0.000 1	1.3 [1.24- 1.35]	< 0.000 1	0.97 [0.92- 1.02]	0.23	0.87 [0.81- 0.95]	0.000 8	0.91 [0.87- 0.95]	< 0.000 1	0.88 [0.83- 0.94]	0.000 2
	Other	1.54 [1.39- 1.71]	< 0.000 1	1.26 [1.17- 1.35]	< 0.000 1	1.13 [1.06- 1.21]	0.000 2	0.96 [0.89- 1.05]	0.38	1.14 [1.05- 1.23]	0.002	1.17 [1.03- 1.33]	0.014	0.86 [0.8- 0.93]	0.000 1	1.07 [0.96- 1.19]	0.2