

**S4 Table.** LFS and OS in MRD re-emergence group and R/R B-ALL group

Variables	MRD re-emergence				R/R B-ALL			
	4-Year LFS (%)	p-value	4-Year OS (%)	p-value	4-Year LFS (%)	p-value	4-Year OS (%)	p-value
<b>Sex</b>		0.044		0.46		0.515		0.873
Male	53.5±9.9		66.2±9.2		61.0±8.5		64.2±8.4	
Female	85.4±7.8		76.2±9.3		67.9±8.8		69.7±8.6	
<b>Age (yr)</b>		0.218		0.604		0.92		0.61
< 10	74.1±8.5		71.9±8.5		64.0±8.1		62.7±8.1	
≥ 10	57.4±11.5		68.4±10.7		63.9±9.7		72.7±8.8	
<b>Fusion genes</b>		0.142		0.009		0.724		0.762
BCR::ABL	100		100		60.0±21.9		80.0±17.9	
ETV6::RUNX1	100		100		60.0±21.9		66.7±19.2	
KMT2Ar	83.3±15.2		71.4±17.1		100		100	
TCF3::PBX1	37.5±28.6		0		71.4±17.1		75.0±15.3	
<b>Complex cytogenetics</b>		0.014		0.006		0.974		0.408
Yes	33.3±19.2		33.3±19.2		50.0±20.4		41.7±30.4	
No	69.8±7.7		76.9±6.7		61.9±7.3		60.2±7.2	
<b>EMD</b>		-		-		0.212		0.115
Yes	-		-		80.0±12.6		90.0±9.5	
No	68.7±7.0		72.1±6.6		60.8±6.9		62.4±6.8	
<b>Pretreatment BM blasts by morphology</b>		-		-		0.224		0.292
CR	-		-		72.0±7.6		73.4±7.3	
Non-CR	-		-		52.4±10.1		56.1±10.3	
<b>Pretreatment MRD</b>		0.853		0.773		0.188		0.224
< 0.1%	66.1±9.3		71.1±8.7		79.4±10.6		80.0±10.3	
≥ 0.1%	68.8±10.6		70.0±10.2		58.5±7.4		62.2±7.3	
<b>Allo-HSCT history</b>		0.583		0.656		0.835		0.848
Yes	75.0±21.7		60.0±21.9		53.3±17.3		48.6±18.7	
No	69.0±7.2		71.9±6.9		65.7±6.6		69.3±6.3	
<b>CAR-T history</b>		-		-		0.182		0.229
Yes	-		-		100		100	
No	68.5±7.0		73.6±6.5		61.4±6.5		64.7±6.3	

<b>CRS</b>		0.509		0.078		0.413		0.37
0-2	68.8±7.5		74.6±7.0		68.0±7.7		72.2±7.2	
3-4	58.3±18.6		50.0±17.7		56.3±10.7		56.5±10.7	
<b>ICANS</b>		-		-		0.906		0.704
0-2	68.7±7.0		72.1±6.6		64.5±6.8		69.5±6.4	
3-4	-		-		58.2±16.9		49.4±16.7	
<b>Allo-HSCT after CAR-T</b>		0.317		0.252		< 0.001		0.02
Yes	63.9±8.8		65.3±8.5		81.4±6.4		78.0±6.6	
No	73.9±11.3		81.3±9.8		32.6±10.4		44.7±11.0	
<b>CAR-T cell dose</b>		0.215		0.876		0.722		0.743
< 4.03×10 <sup>5</sup> cells/kg	61.9±9.6		70.4±8.8		59.1±9.7		62.5±9.9	
≥ 4.03×10 <sup>5</sup> cells/kg	74.1±10.0		71.4±9.9		67.2±8.2		69.1±7.8	
<b>MRD-negative CR after infusion</b>		-		-		-		-
Yes	70.3±7.0		69.3±6.9		63.2±6.3		66.0±6.2	
No	-		-		-		-	

Values are presented as mean±SE. BM, bone marrow; CAR-T, chimeric antigen receptor-T lymphocytes; CR, complete remission; CRS, cytokine release syndrome; EMD, extramedullary disease; HSCT, hematopoietic stem cell transplantation; ICANS, immune effector cell-associated neurotoxicity syndrome; LFS, leukemia-free survival; MRD, minimal residual disease; OS, overall survival; R/R B-ALL, refractory/relapse B-cell acute lymphoblastic leukemia.