

# High tumor burden before blinatumomab has a negative impact on the outcome of adult patients with B-cell precursor acute lymphoblastic leukemia. A real-world study by the GRAALL

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## Supplemental Material

**High tumor burden before Blinatumomab has a negative impact on the outcome of adult patients with B-cell Precursor Acute Lymphoblastic Leukemia. A real-world study by the GRAALL.**

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**Supplemental table 1. MRD+ cohort: patient characteristics according to pre-blinatumomab MRD level.**

	MRD status at blinatumomab			<i>p</i> **
	MRD < 0.1% N=14	MRD 0.1-1% N=12	MRD > 1% N=6	
Age, median [range] (years)	26 [19-65]	29 [17-74]	37 [24-66]	0.43
Sex, male/female	6/8	10/2	3/3	0.12
WBC, median [range] (G/L)	8.0 [1.4-44.3]	23.4 [3.2-731]	4 [1.0-21.6]	0.15
High-risk cytogenetics*	6 (43)	2 (17)	1 (17)	0.35
<i>IKZF1</i> intragenic deletion, N (%)	2/10 (20)	2/6 (33)	0/1 (0)	0.70
Allo-HSCT before blinatumomab	2/14 (14)	0/12 (0)	0/6 (0)	0.66

\* defined by either t(9;22)/*BCR-ABL1*, *KMT2A-r*, t(1;19)/*TCF3-PBX1*, or low hyploidy/near triploidy

\*\* Kruskal-Wallis test for continuous variables, Fisher's exact test for categorical variables

**Supplemental table 2. Relapse cohort: patient characteristics according to remission status before blinatumomab.**

	Status at blinatumomab		<i>p</i> **
	Overt relapse N=23	CR2+ N=15	
Age, median [range] (years)	54 [20-74]	44 [16-67]	0.22
Sex, male/female	15/8	7/8	0.32
WBC, median [range] (G/L)	8.2 [0.4-148.0]	5.1 [1.0-207.0]	0.92
High-risk cytogenetics*	10 (43)	7 (47)	0.99
<i>IKZF1</i> intragenic deletion, N (%)	2/12 (17)	3/9 (33)	
Disease status			
CR1 duration	10.5 [2.2-66.4]	14.7 [2.7-69.6]	0.10
1 <sup>st</sup> relapse, N (%)	14 (61)	10 (67)	0.99
≥ 2 <sup>nd</sup> relapse, N (%)	9 (39)	5 (33)	-
Allo-HSCT before blinatumomab	8 (35%)	7 (47%)	0.51

\* defined by either t(9;22)/*BCR-ABL1*, *KMT2A-r*, t(1;19)/*TCF3-PBX1*, or low hypodiploidy/near triploidy

\*\* Mann-Whitney test for continuous variables, Fisher's exact test for categorical variables

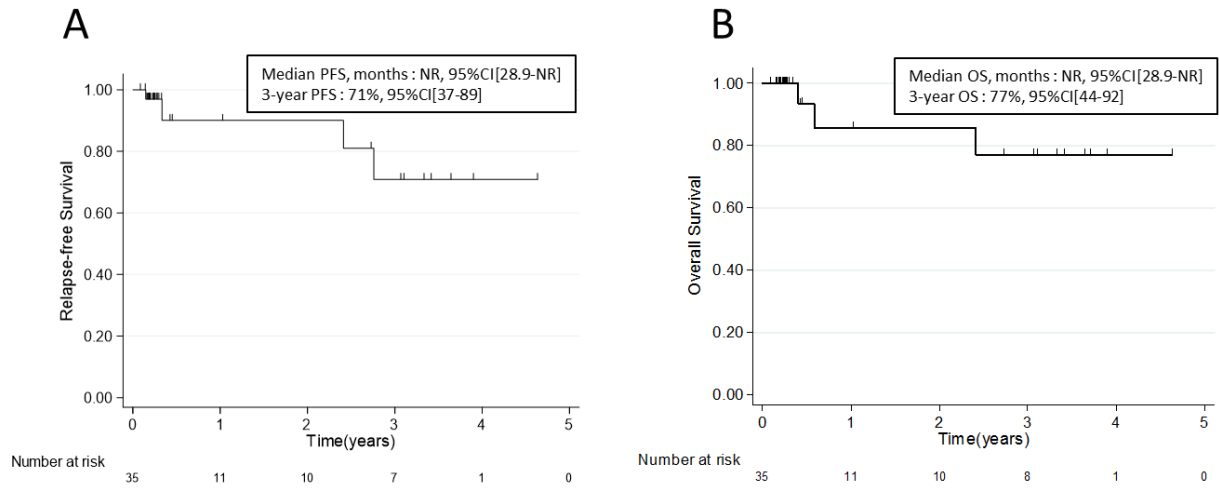
**Supplemental table 3. Cytokine Release Syndrome (CRS) and neurotoxicity.**

	<b>All N=73</b>		<b>MRD+ cohort n=35</b>		<b>Relapse cohort n=38</b>	
	grade 1-2	grade 3+	grade 1-2	grade 3+	grade 1-2	grade 3+
CRS	5	1	4	0	1	1
Neurotoxicity	12	2	5	1	7	1

Abbreviation: CRS, cytokine release syndrome

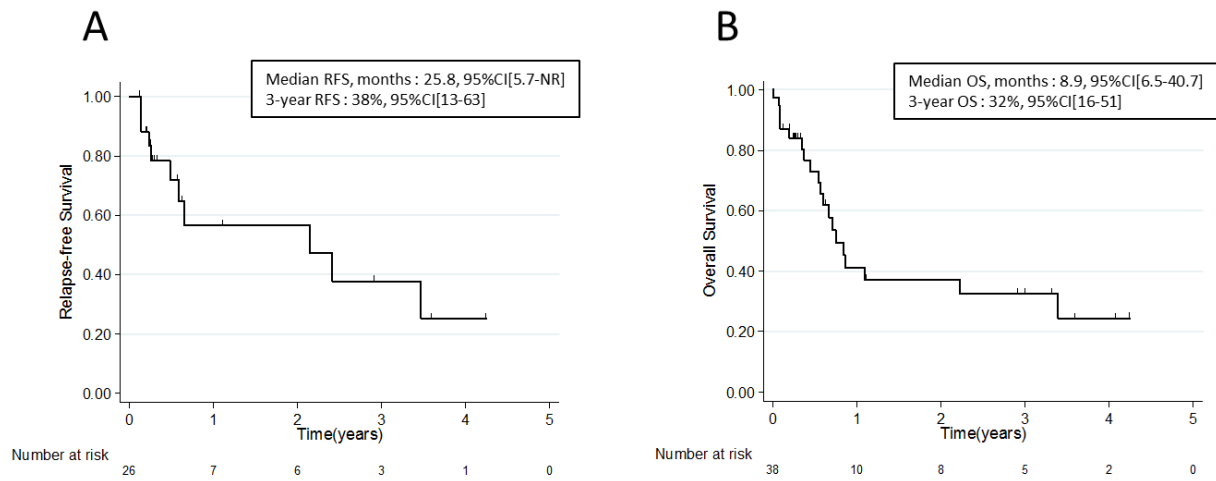
### Supplemental Figure 1. Outcome of MRD+ patients censored at HSCT.

A. Relapse-free survival (RFS) and B. overall survival (OS) censoring patients at HSCT time.



### Supplemental Figure 2. Outcome of relapsed patients censored at HSCT

A. Relapse-free survival (RFS) and B. overall survival (OS) censoring patients at HSCT time.



**Supplemental Figure 3. Impact of pre-blinatumomab tumor burden on outcome in first relapse.**

A. RFS and B. OS in first relapsed patients according to pre-blinatumomab CR.

