

Outcomes of children and young adults with B-cell acute lymphoblastic leukemia given blinatumomab as last consolidation treatment before allogeneic hematopoietic stem cell transplantation

Mattia Algeri,^{1,2*} Michele Massa,^{1,3*} Daria Pagliara,¹ Valentina Bertaina,¹ Federica Galaverna,¹ Ilaria Pili,¹ Giuseppina Li Pira,¹ Roberto Carta,¹ Francesco Quagliarella,¹ Rita M. Pinto,¹ Chiara Rosignoli,¹ Barbarella Lucarelli,¹ Maria G. Cefalo,¹ Emilia Boccieri,¹ Francesca Benini,^{1,3} Francesca Del Bufalo,¹ Marco Becilli,¹ Pietro Merli,^{1,4} Gerhard Zugmaier⁵ and Franco Locatelli^{1,6}

¹Department of Pediatric Hematology/Oncology and Cell and Gene Therapy, IRCCS Bambino Gesù Children's Hospital, Rome, Italy; ²Department of Health Sciences, Magna Graecia University, Catanzaro, Italy; ³Department of Maternal and Child Health, Sapienza University of Rome, Rome, Italy; ⁴Unicamillus University, Rome, Italy; ⁵Amgen Research (Munich) GmbH, Munich, Germany and ⁶Catholic University of the Sacred Heart, Rome, Italy

**MA and MM contributed equally as first authors.*

Correspondence: F. Locatelli
franco.locatelli@opbg.net

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Supplementary

Table S1: multivariable analysis for CI of aGVHD (Fine and Gray regression)

Variable	Hazard Ratio	Lower 95% CI	Upper 95% CI	p-value
Age Group	0.4685	0.2041	1.075	0.0740
CR number at HSCT	1.2200	0.4490	3.314	0.7000
TCD vs. unmanipulated	2.3810	0.6694	8.467	0.1800
Number of blinatumomab Cycles	3.4990	1.6020	7.640	0.0017

CR, complete remission; TCD, T-cell depleted

Table S2: multivariable analysis for CI of cGVHD (Fine and Gray regression)

Variable	Hazard Ratio	Lower 95% CI	Upper 95% CI	p-value
Age Group	16.1400	2.3260	112.000	0.0049
CR number at HSCT	0.7013	0.3320	1.481	0.3500
TCD vs. unmanipulated	4.4100	0.5417	35.900	0.1700
Number of blinatumomab cycles	2.3010	0.7661	6.913	0.1400

CR, complete remission; TCD, T-cell depleted

Table S3. Details on clinically significant infections

Type of infection/reactivation	Number of cases (percentage)
Cytomegalovirus reactivation	19 (24)
Epstein-Barr virus reactivation	6 (7.7)
Adenovirus reactivation	10 (12.8)
Varicella-Zoster virus reactivation	4 (5.1)
Respiratory viruses infection	29 (37.2)
SARS-CoV2	9 (11.5)
Systemic bacterial infection	15 (19.2)
Invasive aspergillosis	2 (2.6)

Table S4. Details on engraftment and immune reconstitution

ENGRAFTMENT				
Time to neutrophil engraftment* (median, interquartile range)	17 days (14-19)			
Time to platelet engraftment‡ (median, interquartile range)	16 days (11-20)			
IMMUNE RECONSTITUTION	Timepoint			
	1 month	3 months	6 months	12 months
Total lymphocytes	400 (70-2100)	510 (190-1870)	1100 (180-5170)	1760 (460-5640)
CD3 ⁺ T cells/ μ L	182.74 (1.56-1646.73)	205 (12.98-1527.8)	459 (87-2595.34)	938 (275.3-3102)
CD4 ⁺ T cells/ μ L	33.54 (0.32-520)	67.12 (0-457.46)	165.62 (15.4-1045)	417 (86.5-1186)
CD8 ⁺ T cells/ μ L	56.64 (0.02-1467.5)	98 (0.59-1167.7)	203 (17-1559.8)	308 (92.7-1309)
$\alpha\beta$ ⁺ T cells/ μ L	110 (0.34-1594)	163.3 (2.34-1490)	368.5 (58.9-2125)	764 (251-2404)
$\gamma\delta$ ⁺ T cells/ μ L	33.93 (0.54-364)	31.2 (2.96-401.4)	54.72 (1.1-430.8)	87.5 (9.01-1305)
CD3-CD56 ⁺ NK cells/ μ L	178.5 (0.29-759.75)	215.6 (41.5-1209.5)	208 (49.6-892.5)	216 (41.5-1209)
Treg/ μ L	0.46 (0-39.44)	3.6 (0.12-28.27)	13.78 (1.5-46.1)	24.9 (9.98-93.7)
CD19 ⁺ B cells/ μ L	0.39 (0-81)	26.7 (0-247)	136 (0-1576.8)	437 (64.3-1725)
IgA (g/L)	0.07 (0-0.76)	0.145 (0-0.67)	0.34 (0-1.34)	0.50 (0-2.35)
IgM (g/L)	0.095 (0-1.53)	0.22 (0-1.96)	0.51 (0-2.82)	0.56 (0-3.40)
Independence from IgG replacement therapy (%)	11.9	44.7	65.7	86.1

*Neutrophil engraftment: first day with a neutrophil count $\geq 0.5 \times 10^9$ /L for three consecutive days;

‡Platelet engraftment: first day of achieving an unsupported platelet count $\geq 20 \times 10^9$ /L for at least 10 days

Figure S1. Overall survival in the 16 patients who relapsed after HSCT.

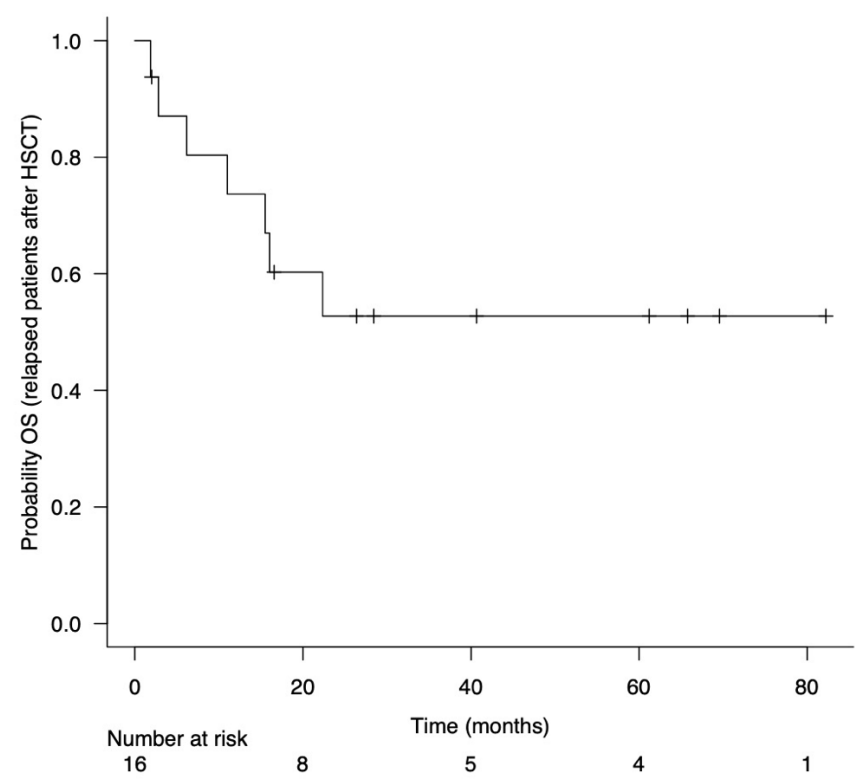


Figure S2. (A) Cumulative incidence of grade II-IV acute GVHD. (B) cumulative incidence of acute GVHD according to graft manipulation (T cell depleted haploidentical donors [black line] vs. unmanipulated allograft [red line]). (C) cumulative incidence of all-grades chronic GVHD. (D) cumulative incidence of all chronic GVHD according to graft manipulation (T cell depleted haploidentical donors [black line] vs. unmanipulated allograft [red line]).

