

**Supplemental Table 1.** 5 year-outcomes of patients with or without MRD at EO11 or at EO12**All patients**

	MRD- at EO11 (n=544)		MRD+ at EO11 (n=240)		MRD- vs. MRD+
	N	% ± 2SE%	N	% ± 2SE%	P
5yr OS from end of induction 1 (Course 1)	544	72.9% ± 3.9%	240	48.2% ± 6.6%	<0.001
5yr DFS from end of induction 1 (Course 1)	544	57.2% ± 4.3%	240	30.5% ± 6.1%	<0.001
5yr RR from end of induction 1 (Course 1)	544	38.6% ± 4.2%	240	61.3% ± 6.4%	<0.001
5yr TRM from end of induction 1 (Course 1)	544	4.3% ± 1.7%	240	8.2% ± 3.6%	0.028

**All patients**

	MRD- at EO12 (n=544)		MRD+ at EO12 (n=121)		MRD- vs. MRD+
	N	% ± 2SE%	N	% ± 2SE%	P
5yr OS from end of induction 1 (Course 2)	544	72.2% ± 3.9%	121	45.7% ± 9.2%	<0.001
5yr DFS from end of induction 1 (Course 2)	544	59.4% ± 4.3%	121	23.1% ± 7.8%	<0.001
5yr RR from end of induction 1 (Course 2)	544	36.5% ± 4.2%	121	71.9% ± 8.3%	<0.001
5yr TRM from end of induction 1 (Course 2)	544	4.1% ± 1.7%	121	5.0% ± 4.0%	0.614

**Supplemental Table 2** Demographic, laboratory, and clinical characteristics of patients with or without MRD at the EO12.

Characteristic	End of Induction 2 MRD status				
	MRD- at EO12 (n=544)		MRD+ at EO12 (n=121)		P
	N	%	N	%	
<b>Total</b>	544		121		
Gender					
Male	257	47.2%	64	52.9%	0.261
Female	287	52.8%	57	47.1%	
Age Group					
0-1 year	101	18.6%	22	18.2%	0.922
2-10 year	205	37.7%	41	33.9%	0.434
>11 year	238	43.8%	58	47.9%	0.402
Cytogenetics					
Normal	77	18.8%	52	31.5%	<b>0.001</b>
t(8;21)	75	18.3%	14	8.5%	<b>0.003</b>
inv(16)	62	15.2%	7	4.2%	<b>&lt;0.001</b>
t(9;11)/11q23	94	23.0%	24	14.5%	<b>0.024</b>
t(6;9)	5	1.2%	5	3.0%	0.160
Monosomy 7	3	0.7%	6	3.6%	<b>0.020</b>
Del(7q)	1	0.2%	5	3.0%	<b>0.009</b>
-5/5q	7	1.7%	3	1.8%	1.000
+8	19	4.6%	19	11.5%	<b>0.003</b>
Other	66	16.1%	30	18.2%	0.552
Unknown	12		3		
ITD status					
Negative	462	89.0%	75	67.0%	<b>&lt;0.001</b>
Positive	61	11.8%	37	33.0%	
<i>High Allelic Ratio</i>	31	5.9%	22	19.6%	
<i>Low Allelic Ratio</i>	30	5.7%	15	13.4%	
Unknown	21		9		
CEBPA status					
Negative	486	93.6%	112	100.0%	<b>0.006</b>
Positive	33	6.4%	0	0.0%	
Unknown	25		9		
NPM status					
Negative	475	91.3%	104	92.9%	0.601
Positive	45	8.7%	8	7.1%	
Unknown	24		9		
Risk group (cyto/mutation)					
Standard	258	48.4%	78	65.5%	<b>0.001</b>
Low	230	43.2%	14	11.8%	<b>&lt;0.001</b>
High	45	8.4%	27	22.7%	<b>&lt;0.001</b>
Unknown	11		2		
Risk group (cytogenetic only)					
Standard	347	65.6%	102	86.4%	<b>&lt;0.001</b>
Low	167	31.6%	11	9.3%	<b>&lt;0.001</b>
High	15	2.8%	5	4.2%	0.387
Unknown	15		3		
Response by End of Course 1					
CR	463	86.2%	47	39.2%	<b>&lt;0.001</b>
Partial remission (>5% - 15%)	46	8.6%	31	25.8%	<b>&lt;0.001</b>
Persistent disease (>15%)	28	5.2%	42	35.0%	<b>&lt;0.001</b>
CNS refractory (declared off therapy)	0	0.0%	0	0.0%	-
Death	0	0.0%	0	0.0%	
Not Evaluable	7		1		
Response by End of Course 2					
CR	530	98.1%	70	59.3%	<b>&lt;0.001</b>
Not CR	10	1.9%	48	40.7%	
Not Evaluable	4		3		
Age					
Median (range)	9.5	(0.005 - 23.5)	10.6	(0.003 - 29.4)	0.186
WBC x10 <sup>3</sup> µL					
Median (range)	23.7	(0.5 - 827.2)	27.6	(1.0 - 446)	0.170
BM Blasts %					
Median (range)	65	(0 - 100)	71.1	(3 - 99)	0.206
Protocol SCT received?					
Yes	85	15.6%	22	18.2%	0.489
No	459	84.4%	99	81.8%	

**Supplemental Table 3.** Information of patients who received bone marrow transplant with or without MRD at EO11 and EO12

<b>All patients</b>	<b>N (total patients)</b>	<b>N (patients who received BMT)</b>	<b>% of patients with BMT</b>
MRD- at EO11, MRD- at EO12	401	56	11
MRD+ at EO11, MRD- at EO12	65	19	29
MRD+ at EO11, MRD+ at EO12	57	18	32

<b>Standard risk only</b>	<b>N (total patients)</b>	<b>N (patients who received BMT)</b>	<b>% of patients with BMT</b>
MRD- at EO11, MRD- at EO12	182	29	16
MRD+ at EO11, MRD- at EO12	35	10	29
MRD+ at EO11, MRD+ at EO12	38	9	24

**Supplemental Figure 1. 5-year TRM subdivided by EO11 leukemia burden.** The correlation of 5-year TRM and the amount of MRD at EO11 was shown.

