
Expression profiling of adult acute lymphoblastic leukemia identifies a *BCR-ABL1*-like subgroup characterized by high non-response and relapse rates

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SUPPLEMENTAL DATA for

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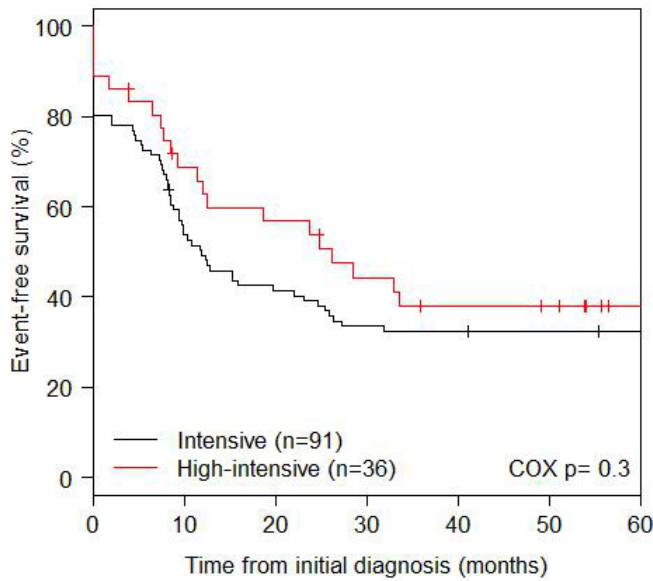
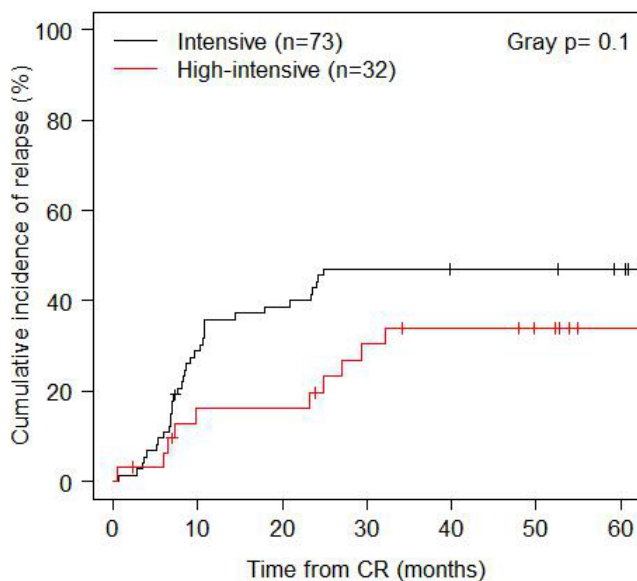
Supplemental Figure S1. Clinical outcome for High-intensive and Intensive treatment protocols

Supplemental Table S1. Characteristics and outcome of HOVON patients who were included in the molecular analyses compared with the total study cohort

	Included in BCR-ABL1-like paper				Total	
	no		yes			
	[# and column %]					
Total	305	100%	102	100%	407	100%
Trial code						
HO18	96	31%	38	37%	134	33%
HO37	141	46%	41	40%	182	45%
HO70	28	9%	8	8%	36	9%
HO71	40	13%	15	15%	55	14%
Sex (P=0.07)						
M	169	55%	46	45%	215	53%
F	136	45%	56	55%	192	47%
Age (P=0.98)						
Median	36		36		36	
Range	15-69		16-68		15-69	
WBC [$\times 10^9/l$] (P<0.001)						
Median	7.1		14.1		8.8	
Range	0.4-878		0.7-505		0.4-878	
WBC: <30 vs. $\geq 30 \times 10^9/l$ (P=0.014)						
<30	240	79%	68	67%	308	76%
≥ 30	65	21%	34	33%	99	24%
CR after cycle 1 (P=0.17)						
no	83	27%	35	34%	118	29%
yes	222	73%	67	66%	289	71%
Risk based on WBC, (cyto)genetics and CR1 (P=0.006)						
standard	162	53%	38	37%	200	49%
high	143	47%	64	63%	207	51%
CR (on protocol) achieved (P=0.12)						
no	38	12%	19	19%	57	14%
yes	267	88%	83	81%	350	86%
Event free survival (P=0.69)						
median	15 mo		13 mo		15 mo	
at 10 years	31%		30%		31%	
Disease free survival from CR (P=0.51)						
median	17 mo		24 mo		18 mo	
at 10 years	35%		37%		35%	
Overall survival (P=0.76)						
median	23 mo		23 mo		23 mo	
at 10 years	35%		34%		35%	

Supplemental Table S2. Reverse transcription PCR primers used for the detection of tyrosine kinase fusion genes. Design as reported by Roberts *et al.*, New Engl J Med 2014

Gene fusion	Forward Primer ID	Forward sequence 5' to 3'	Reverse Primer ID	Reverse sequence 5' to 3'
ETV6-ABL1	ETV6_exon5_F4	ggagaataatcactgccagcgtcct	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
NUP214-ABL1	NUP_exon20_F5	cagtggccttgaggaaaaccagt	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
RANBP2-ABL1	RANBP2_exon16_F2	tggttctttgcgaaatgcagattca	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
RCSD1-ABL1	RCSD1_exon3_F3	cagccagtaaaccaaccgaaggaa	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
SNX2-ABL1	SNX2_exon3_F1	cggaaccttctctgcagtcacacc	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
ZMIZ1-ABL1	ZMIZ1_exon17_F2	aggaccggcagatgaacaccaactg	ABL1_exon4_R2	gccaccgtcaggctgtatttcttc
PAG1-ABL2	PAG1_exon7_F1	ccttcaggagaaggaagggggagagg	ABL2_exon6_R3	gtcgtggatggggacacaccatag
RCSD1-ABL2	RCSD1_exon3_F3	cagccagtaaaccaaccgaaggaa	ABL2_exon6_R3	gtcgtggatggggacacaccatag
ZC3HAV1-ABL2	ZC3HAV1_exon11_F2	tgtcagagatccatcacctacatcca	ABL2_exon6_R3	gtcgtggatggggacacaccatag
SSBP2-CSF1R	SSBP2_exon12_F2	tcatgcctagtccagcagattcaacca	CSF1R_exon14_R2	tggctcatgatcttcagctcggaca
MYH9-CSF1R	MYH9_exon1_F2	gcgggaagcgcgaggag	CSF1R_exon14_R2	tggctcatgatcttcagctcggaca
ETV6-NTRK3	ETV6_exon5_F4	ggagaataatcactgccagcgtcct	NTRK3_exon15_R1	atcttgccttggtcgggctgaggt
ATF7IP-JAK2	ATF7IP_exon12_F2	aaccatataaccagcaccgcctct	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
BCR-JAK2	BCR_exon1_F1	gtgcataagcggcaccggcact	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
EBF1-JAK2	EBF1_exon14_F2	cacgagcatgaacggatacggctct	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
ETV6-JAK2	ETV6_exon3_F1	atggcaaagctctctgctgtgac	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
PAX5-JAK2	PAX5_exon3_F2	acaatgacaccgtgctagcgtcag	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
PPFIBP1-JAK2	PPFIBP1_exon10_F1	tgcaagatgaaaggagaaggggttga	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
SSBP2-JAK2	SSBP2_exon7_F1	ggcacttgagggtgtcccaggaagt	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
STRN3-JAK2	STRN3_exon7_F3	tgaaggagctggagaagcaggagt	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
TPR-JAK2	TPR_exon38_F1	tggaaatgcctcttcaaagaagtga	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
TERF2-JAK2	TERF2_exon8_F	agacttgggtggaagaggatgaactgt	JAK2_exon20_R4	tgttgcctgctgtagggattcagga
EBF1-PDGFRB	EBF1_exon11_F	ccaccatcgattatggtttccagaggt	PDGFRB_exon13_R2	tttcatctggcctgagaatggctc
TNIP1-PDGFRB	TNIP1_exon13_F2	aagcactgagcatcaaacc	PDGFRB_exon13_R2	tttcatctggcctgagaatggctc
ZEB2-PDGFRB	ZEB2_exon9_F2	ccaactggagcagctacttttctga	PDGFRB_exon13_R2	tttcatctggcctgagaatggctc
SSBP2-PDGFRB	SSBP2_exon7_F1	ggcacttgagggtgtcccaggaagt	PDGFRB_exon13_R2	tttcatctggcctgagaatggctc
SSBP2-PDGFRB	SSBP2_exon12_F2	tcatgcctagtccagcagattcaacca	PDGFRB_exon13_R2	tttcatctggcctgagaatggctc
MYB-TYK2	MYB_exon6_F1	tcaggctccgctacagctcaactc	TYK2_exon19_R2	tccgggttcacagtaagcgtcag
MYH9-IL2RB	MYH9_exon1_F2	gcgggaagcgcgaggag	IL2RB_exon10_R2	caccctggccatctgtctacaccaa
IQGAP2-TSLP	IQGAP2_exon1_F2	agatcttcggggcgtaggggaaat	TSLP_exon1_2_R1	tggatatttcacagcaccacaaataa

A**B****Supplemental Figure S1. Clinical outcome for High-intensive and Intensive treatment protocols**

Patients had been included in one of four consecutive clinical trials of the Dutch-Belgium HOVON study group or had been treated accordingly in intensive (HOVON-18 or HOVON-37, n=91, 1993-2005) or pediatric-inspired high-intensive (HOVON-70 or HOVON-71, n=36, 2005-2009) protocols.

(A) Event-free survival curves for High-intensive and Intensive treatment protocols. The events were no CR on protocol, relapse, and death. (B) Cumulative incidence of relapse curves from time of CR for High-intensive and Intensive treatment protocols. For CIR analyses, relapse was taken as event, and death as a competing event.