

LSC17 score complements genetics and measurable residual disease in acute myeloid leukemia: an ALFA study.

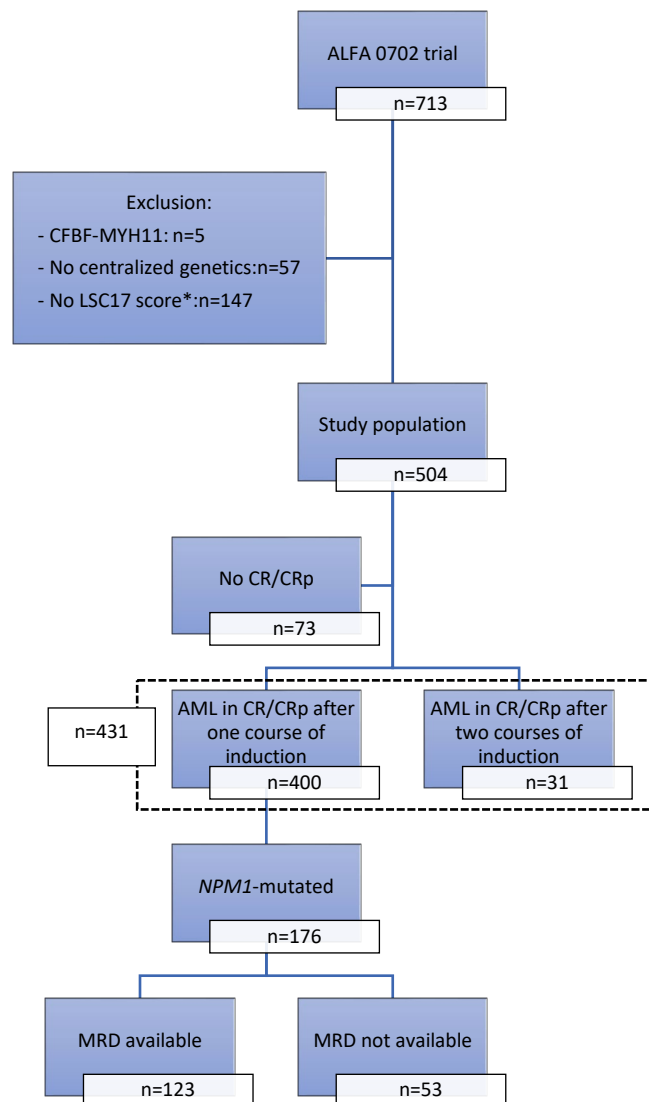
L. Vasseur et al.

Supplementary Appendix

Supplementary Figures 1-2: pages 2-3

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Supplementary Figure 1. Study Flow Chart. Study population according to the availability of the LSC17 score at diagnosis, NGS gene panel at diagnosis, and *NPM1*-MRD data in the total ALFA 0702 population.

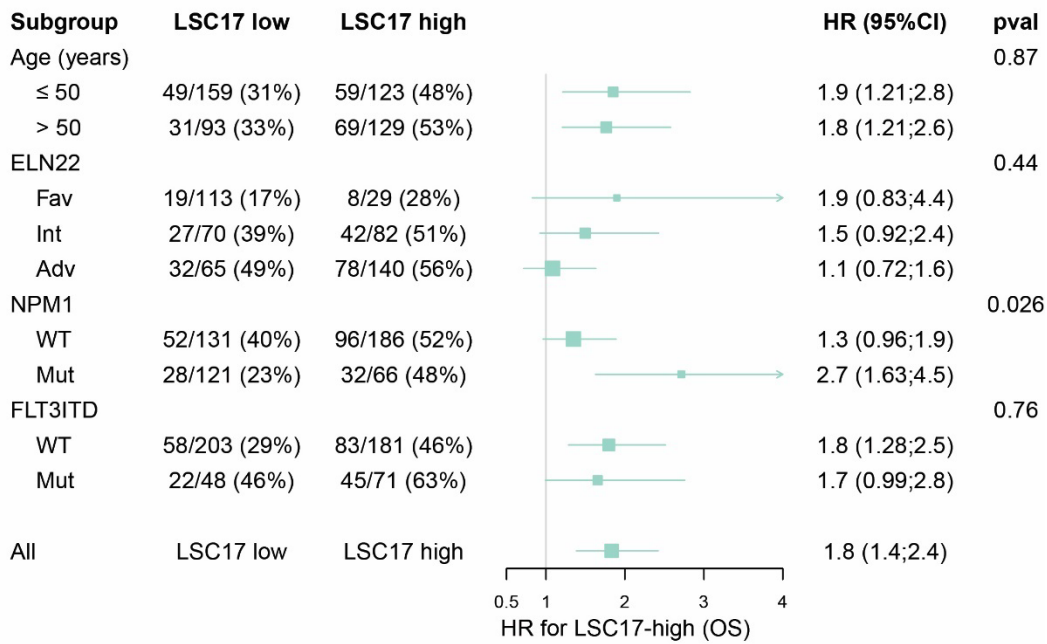


*LSC17 score was not performed due to the lack of sufficient material to extract RNA and to perform Nanostring assay.

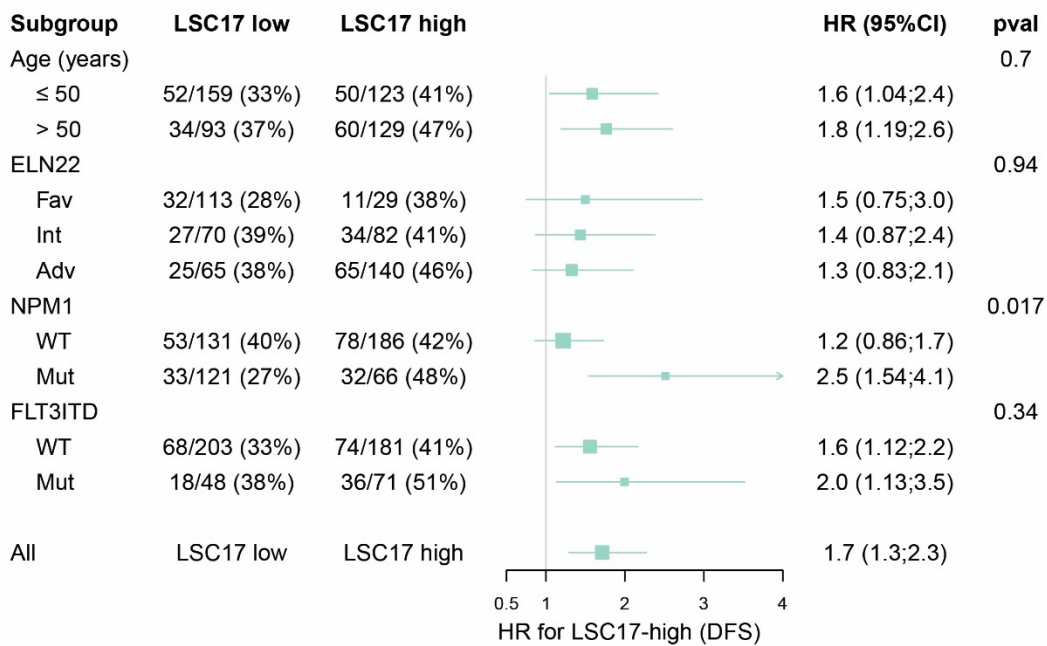
Supplementary Figure 2. Forest plot of LSC17 status impact on OS and DFS according

to baseline characteristics. In each subgroup, according to LSC17 status, number of patients with an event, total patients at risk and percentage are represented with hazard ratios with confidence intervals and p-value of the interaction term for **A. Overall** and **B. Disease-Free Survival**.

A



B



Supplementary Table 1. Risk Stratification in the ALFA-0702 Trial and protocol-defined Transplantation indications

Protocol-defined risk	Characteristics*	HSCT indication
Favorable	Normal karyotype if <i>NPM1</i> or <i>CEBPA</i> mutation** but without <i>FLT3-ITD</i> ***	No
Intermediate	All other cases	Yes
Unfavorable	-5, -7, 5q-, 7q- 11q23 or <i>MLL</i> + including <i>MLL</i> -PTD (except 9;11) t(6;9) Complex karyotype (≥ 3 abnormalities) 3q26 abnormalities or <i>EVI-1</i> + by RT-qPCR > 1 course to achieve CR	Yes

*based on local cytogenetics and genetics

**mono-allelic or bi-allelic mutation

***regardless of allelic ratio

Supplementary Table 2. Multivariable analysis of Cumulative Incidence of Relapse and Non-relapse Mortality. SHR Standardized Hazard Ratio. P-values from Fine and Gray model for competing events.

	Cumulative Incidence of Relapse		Non-relapse Mortality	
	SHR (95% CI)	p-value	SHR (95% CI)	p-value
<i>LSC17 status</i>				
LSC17-low	1		1	
LSC17-high	1.47 (1.03-2.09)	0.034	1.00 (0.50-2.01)	0.99
Age (per 10 years)	1.19 (1.02-1.40)	0.029	1.08 (0.84-1.40)	0.54
Log ₁₀ (WBC)	1.44 (1.10-1.88)	0.009	0.93 (0.57-1.51)	0.76
<i>ELN 2022 risk</i>				
Favorable	1		1	
Intermediate	1.54 (0.97-2.42)	0.066	2.08 (0.83-5.20)	0.12
Adverse	1.89 (1.21-2.95)	0.005	2.53 (0.93-6.87)	0.07

Supplementary Table 3. Logistic regression on *NPM1* MRD level after the first course of induction chemotherapy.

	OR (95% CI)	p-value
<i>LSC17 status</i>		
LSC17-low	1	
LSC17-high	1.03 (0.42-2.48)	0.95
Age (per 10 years)	0.97 (0.64-1.52)	0.90
Log₁₀(WBC)	1.78 (0.87-3.77)	0.12
<i>ELN 2022 risk</i>		
Favorable	1	
Intermediate	1.08 (0.42-2.70)	0.86
Adverse	1.42 (0.25-6.86)	0.67

Supplementary Table 4. Multivariable analysis of the prognostic impact of LSC17 score on DFS and OS from CR/CRp in patients with an available *NPM1* MRD1 result.

	DFS		OS from CR/CRp	
	HR (95% CI)	p-value	HR (95% CI)	p-value
<i>LSC17 status</i>				
LSC17-low	1		1	
LSC17-high	2.34 (1.23-4.48)	0.010	2.31 (1.09-4.91)	0.029
Age (per 10 years)	1.17 (0.80-1.71)	0.41	1.44 (0.92-2.25)	0.11
Log ₁₀ (WBC)	1.04 (0.60-1.81)	0.88	1.47 (0.77-2.81)	0.24
<i>ELN 2022 risk</i>				
Favorable	1		1	
Intermediate	1.18 (0.59-2.36)	0.64	2.02 (0.92-4.46)	0.08
Adverse	1.77 (0.59-5.32)	0.31	2.58 (0.79-8.38)	0.11
<i>NPM1 MRD</i>				
Negative	1		1	
Positive	3.36 (1.81-6.24)	0.0001	2.66 (1.29-5.48)	0.008

Supplementary Table 5. Discrimination performances of LSC17 status, MRD, ELN22, and the combination of LSC17 and MRD in patients with an available *NPM1*-MRD1 result.

ROC-AUC	3-year OS from CR	3-year DFS	3-year CIR
LSC17	0.717 (95%CI:0.618-0.816)	0.664 (95%CI:0.574-0.754)	0.634 (95%CI:0.539-0.73)
MRD	0.659 (95%CI:0.558-0.761)	0.679 (95%CI:0.591-0.768)	0.708 (95%CI:0.616-0.801)
ELN22	0.671 (95%CI:0.566-0.777)	0.552 (95%CI:0.454-0.651)	0.539 (95%CI:0.437-0.641)
LSC17 and MRD	0.800 (95%CI:0.708-0.892)	0.766 (95%CI:0.677-0.855)	0.777 (95%CI:0.684-0.869)