

Validation of cytogenetic risk groups according to International Prognostic Scoring Systems by peripheral blood CD34⁺FISH: results from a German diagnostic study in comparison with an international control group

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Supplemental data

Table A. Cooperating Centers of Hematology of the CD34+PB FISH study.

Table B. Possible aberrations detectable by FISH probes used in this study (by Abbott® or MetaSystems®).

Table C. Chromosomal aberrations according to IPSS/-R classification detectable by the FISH probe panel (all Abbott® or MetaSystems® products) performed for this study. n.a.: not applicable; #: unrelated clones not separable.

Figure A. Flow Chart of the CD34+PB FISH Study: The large superpanel was performed at study entry, every 12 months during follow up and in every case of suspected progression of the disease. The smaller standardpanel was performed every 2 months in the first and every 3 months in the second and third year of the diagnostic study, plus, if necessary, an informative probe of the superpanel.

Figure B. Prognosis regarding overall survival (OS) and AML-free survival (AFS) according to therapy regimen in the CD34+PB FISH cohort. BSC: Best supportive care; any other: any other than best supportive care.

Figure C. Overall survival (A) and AML-free survival (B) by CBA and CD34+PB FISH. p not significant for both.

Table A: Cooperating Centers of Hematology of the CD34+PB FISH study.

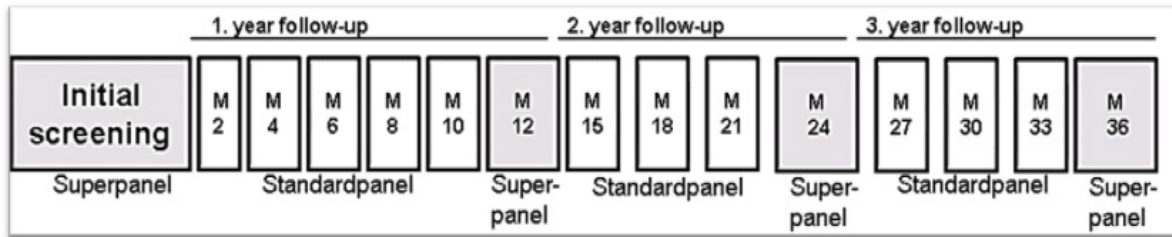
Center of Hematology	Number of patients (n)
University of Goettingen	56
University of Dresden	50
Technical University of Munich	46
Gemeinschaftspraxis Northeim	24
University of Duesseldorf	21
University of Mannheim	20
Hospital of Duisburg	20
Uniklinik Aachen	15
Gemeinschaftspraxis Goettingen	14
University of Frankfurt	12
University of Hamburg	10
University of Freiburg	8
Gemeinschaftspraxis Magdeburg	8
University of Ulm	7
Medizinische Hochschule Hannover	6
Charité University of Berlin	6
Gemeinschaftspraxis Munich	3
Oncologicum Frankfurt am Museumsufer	2

Table B: Possible aberrations detectable by FISH probes used in this study (by Abbott® or MetaSystems®).

Probe	Aberrations detectable
LSI D7S522(7q31)/CEP7™	-7, +7, del(7)(q31),add(7q),der(7)t(7;#)
LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™	-5, +5, del(5)(q31), del(5)(p15.2), add(5q), der(5)t(5;#), add(5p)
LSI CEP 8 SpectrumOrange™	+8, -8
LSI CEP X SpectrumOrange™/Y SpectrumGreen™	-X, +X, -Y, +Y
LSI D20S108 (20q12)™	-20, +20, del(20)(q12), add(20q), der(20)t(20;#)
LSI p53 (17p13.1)™	+17, del(17)(p13.1), add(17p), der(17)t(17;#)
LSI IGH/BCL2™	+14, -14, del(14)(q32), add(14q), der(14)t(14;#), -18, del(18)(q21), add(18q), der(18)t(18;#)
LSI TEL/AML1 ES™	+12, -12, del(12)(p13), add(12p), der(12)t(12;#), +21, -21, del(21)(q22), add(21), der(21)t(21;#)
LSI 13 (RB1)13q14™	+13, -13, del(13)(q14), add(13q), der(13)t(13;#)
LSI MLL DualColor™	+11, -11, del(11)(q23), add(11q), der(11)t(11;#)
LSI1p36SO/1q25SG™	+1, -1, +(1q25), +(1p36), del(1)(q25), del(1)(p36), add(1p), der (1)t(1;#) add(1q)
LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™	del(5)(q33-q34), add(5q), der(5)t(5;#) , del(5)(p15.2), add(5p), -5, +5
XL TET2™	del(4)(q24), +4, +(4q24), -4, add(4q), der(4)t(4;#)

Table C: Chromosomal aberrations according to IPSS/-R classification detectable by the FISH probe panel (all Abbott® or MetaSystems® products) performed for this study. n.a.: not applicable; #: unrelated clones not separable.

Chromosomal aberrations	FISH probe
<i>Single abnormalities</i>	
inv(3q)t(3;3)	n.a.
any other single	LSI 1p36SO/1q25SG™, LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™, LSI D7S522(7q31)/CEP7™, LSI CEP 8 SpectrumOrange™, LSI MLL DualColor™, LSI TEL/AML1 ES™, LSI 13 (RB1)13q14™, LSI IGH/BCL2™, LSI TP53(17p13.1)™, LSI D20S108(20q12)™, CEP X SpectrumOrange™/Y SpectrumGreen™, XL TET2™
del(11q)	LSI MLL DualColor™
del(12p)	LSI TEL/AML1 ES™
del(20q)	LSI D20S108(20q12)™
del(5q)	LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™
del(7q)	LSI D7S522(7q31)/CEP7™
i(17q)	LSI TP53(17p13.1)™
-7	LSI D7S522(7q31)/CEP7™
-Y	CEP X SpectrumOrange™/Y SpectrumGreen™
+19	n.a.
+8	LSI CEP 8 SpectrumOrange™
<i>Double abnormalities</i>	
Double including del(5q)	LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™ plus any other probe #
Double including -7/del(7q)	LSI D7S522(7q31)/CEP7™ plus any other probe#
Any other combination	LSI 1p36SO/1q25SG™, LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™, LSI D7S522(7q31)/CEP7™, LSI CEP 8 SpectrumOrange™, LSI MLL DualColor™, LSI TEL/AML1 ES™, LSI 13 (RB1)13q14™, LSI IGH/BCL2™, LSI TP53(17p13.1)™, LSI D20S108(20q12)™, CEP X SpectrumOrange™/Y SpectrumGreen™, XL TET2™ #
<i>Complex abnormalities</i>	
Complex 3 abnormalities	LSI 1p36SO/1q25SG™, LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™, LSI D7S522(7q31)/CEP7™, LSI CEP 8 SpectrumOrange™, LSI MLL DualColor™, LSI TEL/AML1 ES™, LSI 13 (RB1)13q14™, LSI IGH/BCL2™, LSI TP53(17p13.1)™, LSI D20S108(20q12)™, CEP X SpectrumOrange™/Y SpectrumGreen™, XL TET2™ #
Complex ≥4 abnormalities	LSI 1p36SO/1q25SG™, LSI CSF1R (5q33-q34)/D5S23,D5S721(5p15.2)™, LSI EGR1(5q31)/D5S23,D5S721(5p15.2)™, LSI D7S522(7q31)/CEP7™, LSI CEP 8 SpectrumOrange™, LSI MLL DualColor™, LSI TEL/AML1 ES™, LSI 13 (RB1)13q14™, LSI IGH/BCL2™, LSI TP53(17p13.1)™, LSI D20S108(20q12)™, CEP X SpectrumOrange™/Y SpectrumGreen™, XL TET2™ #



Superpanel 1p/1q, TET2, CSF1R, EGR1/D5, D7/CEP7, CEP8, MLL, TEL/AML1, RB1, IGH/BCL2, TP53, D20, CEP X/Y.

Standardpanel TET2, EGR1/D5, D7/CEP7, CEP8, TEL/AML1, TP53, D20, CEP X/Y.

Figure A: Flow Chart of the CD34+PB FISH Study: The large superpanel was performed at study entry, every 12 months during follow up and in every case of suspected progression of the disease. The smaller standardpanel was performed every 2 months in the first and every 3 months in the second and third year of the diagnostic study, plus, if necessary, an informative probe of the superpanel.

Prognosis regarding overall survival (OS) and AML-free survival (AFS) according to therapy regimen in the CD34+PB FISH cohort
 BSC: Best supportive care; any other: any other therapy than best supportive care

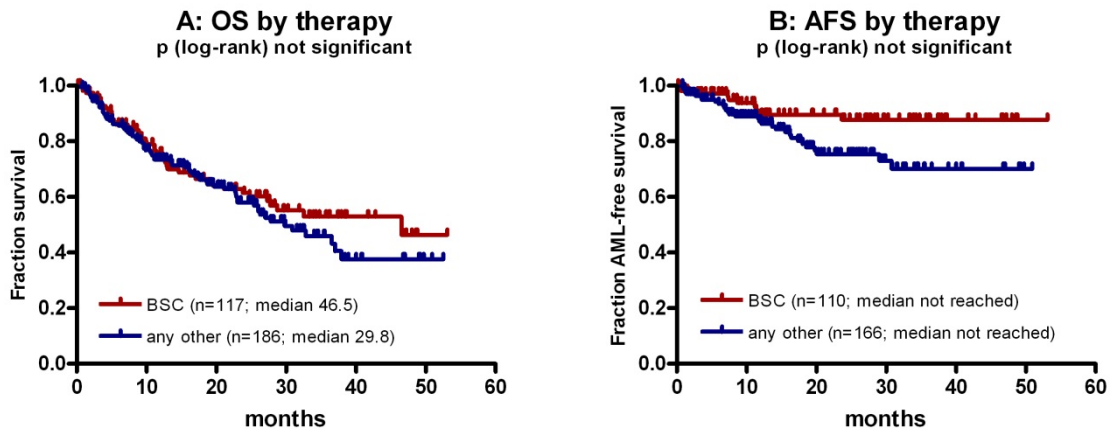
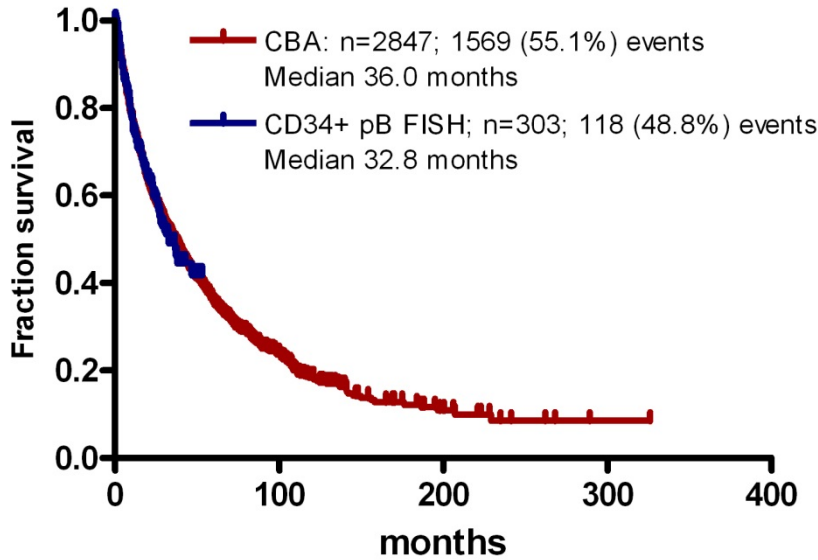


Figure B: Prognosis regarding overall survival (OS) and AML-free survival (AFS) according to therapy regimen in the CD34+PB FISH cohort.

Overall survival and AML-free survival by CBA and CD34+PB FISH

A: Overall survival
p (log-rank not significant)
HR 1.01 (0.27-1.93)



B: AML free survival
p (log-rank not significant)
HR 1.33 (0.98-1.72)

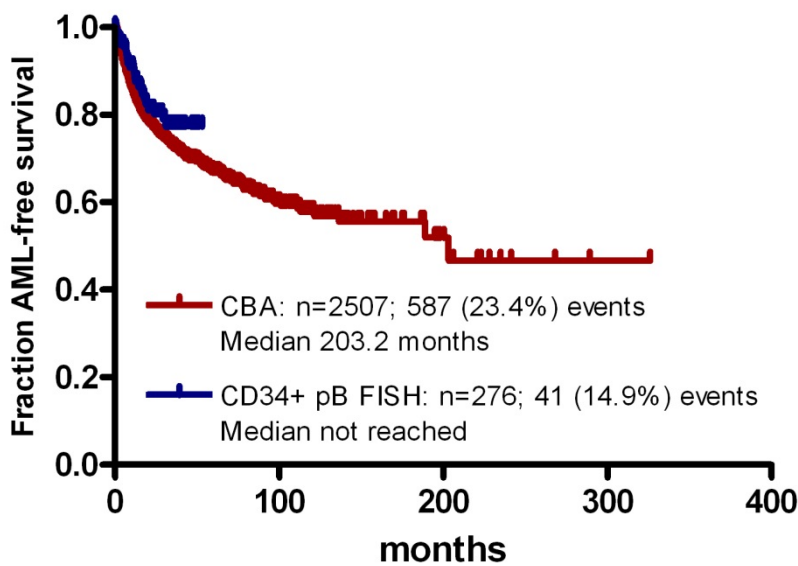


Figure C: Overall survival (A) and AML-free survival (B) by CBA and CD34+PB FISH.