

Supplement Table Legend

Table S1. Baseline characteristics in AML patients receiving FM, FB RIC regimen for allogeneic HCT (CR cohort)

Table S2. Adjusted probabilities for outcomes in the CR cohort

Table S3. Multivariate analysis for outcomes (FM vs FB) in the full cohort

Table S4. Multivariate analysis for outcomes (FM vs FB) in the CR cohort

Table S5. Multivariate analysis for outcomes (FM vs FB) in CR cohort adjusted for HCT-CI

Table S6. Transplant outcomes in AML patients receiving FM, FB RIC for allogeneic HCT from identical sibling or well matched unrelated donor

Table S7. Neutrophil and platelet engraftment in AML patients receiving FM, FB RIC regimen

Table S8. Cause of Death

Supplement Tables

Table S1.

	FM	FB	<i>p</i> -value
Patient-related			
Number of patients	384	627	
Number of Centers	63	73	
Age at transplant			
Median (range)	59 (19-76)	61 (18-76)	<0.001
Gender, male (%)	226 (59)	355 (57)	0.49
Karnofsky score (%)			0.71
< 90	158 (43)	247 (41)	
≥90	213 (57)	350 (59)	
Disease status prior to HCT			
MRD status prior to transplant (%)			<0.001
Negative	127 (34)	256 (43)	
Positive	40 (11)	63 (11)	
Not in CR1	39 (10)	86 (15)	
NA prior 2007	171 (45)	185 (31)	
Cytogenetic score (%)			0.82
Favorable	22 (6)	36 (6)	
Intermediate	204 (58)	354 (60)	
Poor	126 (36)	200 (34)	
Therapy related/secondary AML (%)			0.03
No	320 (84)	552 (89)	
Yes	59 (16)	67 (11)	
Transplant-related			
Donor type			
HLA-identical sibling	89 (23)	203 (32)	
Well-matched unrelated (8/8)	200 (52)	334 (53)	
Partially-matched unrelated (7/8)	71 (19)	66 (11)	
Mismatched unrelated (≤6/8)	8 (2)	4 (<1)	
Donor age at HCT (for URD only)			
Median (range)	34 (19-60)	31 (18-61)	0.008
GVHD prophylaxis (%)			<0.001
TAC-based + MTX	137 (37)	407 (66)	
TAC-based + MMF	83 (22)	117 (19)	
CSA-based + MTX	39 (11)	11 (2)	
CSA-based + MMF	40 (11)	23 (4)	
ATG/Alemtuzumab use (%)	151 (39)	326 (52)	<0.001
Graft type			<0.001

	FM	FB	<i>p</i> -value
Bone marrow	71 (19)	54 (9)	
Peripheral blood	313 (82)	573 (91)	
Year of transplant			<0.001
2001-2005	93 (24)	70 (11)	
2006-2015	291 (75)	557 (89)	
Median Follow-up (months, range)	77 (6-168)	72 (6-169)	

Table S2.

	FM (%)	FB (%)	p-value
OS			
1yr	58 (53-62)%	58 (54-61)%	0.99
3yr	41 (37-46)%	37 (33-40)%	0.12
5yr	35 (30-40)%	31 (28-35)%	0.24
LFS			
1yr	48 (44-53)%	44 (40-47)%	0.13
3yr	35 (30-40)%	29 (26-33)%	0.06
5yr	28 (24-33)%	25 (22-28)%	0.24
Relapse			
1yr	24 (19-28)%	44 (41-48)%	<0.001*
3yr	33 (28-37)%	52 (48-56)%	<0.001*
5yr	36 (31-40)%	55 (51-59)%	<0.001*
NRM			
1yr	28 (23-32)%	12 (9-14)%	<0.001*
3yr	32 (28-37)%	19 (16-22)%	<0.001*
5yr	36 (31-41)%	21 (17-24)%	<0.001*

* Significant *p*-value;

HR: Hazard ratio; OS: overall survival; LFS: Leukemia-free survival; NRM: non-relapse mortality.

Table S3.

	N	HR (95% CI)	p-value
OS			
FM vs. FB ≤3 months		1.82 (1.36-2.45)	< 0.001
FM vs. FB >3 months		0.87 (0.76-1.00)	0.05
Age			< 0.001
18-39	127	Reference	
40-59	560	1.49 (1.16-1.91)	0.002
60-69	645	1.66 (1.29-2.13)	< 0.001
≥70	81	2.07 (1.47-2.90)	< 0.001
KPS			0.02
<90	626	Reference	
≥90	727	0.83 (0.73-0.95)	0.005
Secondary/t-AML			0.03
No	1222	Reference	
Yes	163	1.26 (1.05-1.52)	0.01
Cytogenetics			< 0.001
Favorable	86	Reference	
Intermediate	749	1.48 (1.08-2.02)	0.01
Poor	465	2.02 (1.47-2.79)	< 0.001
Disease status			< 0.001
CR1	769	Reference	
≥CR2	273	1.11 (0.93-1.32)	0.24
PIF/Rel	369	1.56 (1.34-1.80)	< 0.001
Donor			0.002
HLA-identical sibling (8/8)	371	Reference	
Other related	31	0.93 (0.59-1.48)	0.77
Well-matched unrelated (8/8)	762	1.17 (1.01-1.37)	0.04
Partially-matched unrelated (7/8)	210	1.45 (1.19-1.77)	< 0.001
Mismatched unrelated (≤6/8)	23	1.84 (1.17-2.89)	0.008
LFS			
Main effect			0.05
FB	788	Reference	
FM	617	0.89 (0.78-1.00)	0.05
KPS			0.006
<90	622	Reference	
≥90	723	0.82 (0.73-0.93)	0.001
Secondary/t-AML			0.002
No	1216	Reference	
Yes	161	1.36 (1.13-1.63)	< 0.001
Cytogenetics			< 0.001
Favorable	86	Reference	
Intermediate	744	1.36 (1.02-1.81)	0.04
Poor	462	1.90 (1.41-2.55)	< 0.001

	N	HR (95% CI)	p-value
Disease status			< 0.001
CR1	764	Reference	
≥CR2	272	1.20 (1.02-1.42)	0.03
PIF/Rel	367	1.79 (1.56-2.07)	< 0.001
Donor			0.002
HLA-identical sibling (8/8)	370	Reference	
Other related	31	0.85 (0.54-1.32)	0.46
Well-matched unrelated (8/8)	758	1.17 (1.01-1.35)	0.04
Partially-matched unrelated (7/8)	207	1.30 (1.07-1.58)	0.007
Mismatched unrelated (≤6/8)	23	2.20 (1.42-3.40)	< 0.001
Relapse			
Main effect			< 0.001
FB	788	Reference	
FM	617	0.65 (0.55-0.76)	< 0.001
Age			0.02
18-39	127	Reference	
40-59	557	1.22 (0.92-1.61)	0.16
60-69	641	0.96 (0.72-1.27)	0.75
≥70	80	0.97 (0.64-1.47)	0.88
KPS			0.02
<90	622	Reference	
≥90	723	0.81 (0.69-0.94)	0.006
Secondary/t-AML			0.01
No	1216	Reference	
Yes	161	1.39 (1.12-1.74)	0.003
Cytogenetics			< 0.001
Favorable	86	Reference	
Intermediate	744	1.39 (0.97-2.00)	0.07
Poor	462	2.19 (1.51-3.18)	< 0.001
Disease status			< 0.001
CR1	764	Reference	
≥CR2	272	1.44 (1.18-1.77)	< 0.001
PIF/Rel	367	2.15 (1.80-2.57)	< 0.001
Donor			0.04
HLA-identical sibling (8/8)	370	Reference	
Other related	31	0.59 (0.32-1.08)	0.09
Well-matched unrelated (8/8)	758	0.97 (0.82-1.16)	0.76
Partially-matched unrelated (7/8)	207	0.79 (0.61-1.02)	0.08
Mismatched unrelated (≤6/8)	23	1.81 (1.05-3.13)	0.03
NRM			
FM vs. FB ≤3 months		3.85 (2.46-6.03)	< 0.001
FM vs. FB >3 months		1.14 (0.88-1.47)	0.32

	N	HR (95% CI)	p-value
Age			< 0.001
18-39	127	Reference	
40-59	557	1.30 (0.86-1.98)	0.22
60-69	641	1.76 (1.16-2.66)	0.008
≥70	80	2.78 (1.62-4.76)	< 0.001
Disease status			0.03
CR1	764	Reference	
≥CR2	272	0.84 (0.63-1.12)	0.24
PIF/Rel	367	1.31 (1.03-1.67)	0.03
Donor			< 0.001
HLA-identical sibling (8/8)	370	Reference	
Other related	31	1.46 (0.73-2.92)	0.28
Well-matched unrelated (8/8)	758	2.08 (1.54-2.82)	< 0.001
Partially-matched unrelated (7/8)	207	3.44 (2.42-4.88)	< 0.001
Mismatched unrelated (≤6/8)	23	3.28 (1.52-7.07)	0.002
Year of HCT			0.02
2001-2005	276	Reference	
2006-2010	634	1.26 (0.93-1.70)	0.13
2011-2015	495	1.57 (1.13-2.18)	0.007
GVHD prophylaxis			0.003
TAC-based + MMF	287	Reference	
TAC-based + MTX	728	0.75 (0.58-0.97)	0.03
TAC +/- Others (not MMF or MTX)	147	0.60 (0.40-0.92)	0.02
CSA-based + MMF	101	1.08 (0.73-1.59)	0.71
CSA-based + MTX	66	0.86 (0.53-1.38)	0.53
CSA +/- Others (not MMF or MTX)	25	1.16 (0.55-2.44)	0.70
D-R sex match			0.005
M-M	543	Reference	
M-F	365	0.87 (0.66-1.14)	0.32
F-M	252	1.40 (1.08-1.83)	0.01
F-F	241	0.98 (0.72-1.32)	0.87
In-vivo T-cell depletion (ATG/Alemtuzumab)			0.02
No	739	Reference	
Yes	666	0.78 (0.63-0.97)	0.02

aGVHD II-IV

Main effect			0.002
FB	784	Reference	
FM	610	1.35 (1.12-1.62)	0.002
GVHD prophylaxis			< 0.001
TAC + MMF +/- other(s)	285	Reference	
TAC + MTX +/- other(s)	723	0.65 (0.52-0.80)	< 0.001
TAC +/- Others (not MMF or MTX)	147	0.43 (0.29-0.62)	< 0.001
CSA + MMF +/- other(s)	101	1.41 (1.02-1.96)	0.04

	N	HR (95% CI)	p-value
CSA + MTX +- other(s)	65	0.59 (0.37-0.93)	0.02
CSA +/- Others (not MMF or MTX)	25	0.81 (0.43-1.53)	0.52
Donor			< 0.001
HLA-identical sibling (8/8)	365	Reference	
Other related	31	1.05 (0.51-2.18)	0.89
Well-matched unrelated (8/8)	750	1.60 (1.26-2.02)	< 0.001
Partially-matched unrelated (7/8)	209	2.22 (1.66-2.96)	< 0.001
Mismatched unrelated ($\leq 6/8$)	23	2.68 (1.48-4.87)	0.001
In-vivo T-cell depletion			0.02
No	735	Reference	
Yes	659	0.80 (0.66-0.96)	0.02
Year of HCT			0.02
2001-2005	276	Reference	
2006-2010	630	1.22 (0.95-1.57)	0.12
2011-2015	488	1.46 (1.12-1.90)	0.005
<u>aGVHD III-IV</u>			
Main effect			0.003
FB	784	Reference	
FM	608	1.51 (1.15-1.99)	0.003
GVHD prophylaxis			0.002
TAC + MMF +- other(s)	284	Reference	
TAC + MTX +- other(s)	723	0.54 (0.40-0.75)	< 0.001
TAC +/- Others (not MMF or MTX)	147	0.49 (0.29-0.82)	0.007
CSA + MMF +- other(s)	101	1.04 (0.67-1.63)	0.86
CSA + MTX +- other(s)	65	0.70 (0.38-1.31)	0.27
CSA +/- Others (not MMF or MTX)	24	0.78 (0.31-1.97)	0.60
Donor			< 0.001
HLA-identical sibling (8/8)	365	Reference	
Other related	31	1.67 (0.66-4.23)	0.28
Well-matched unrelated (8/8)	749	1.41 (0.98-2.01)	0.06
Partially-matched unrelated (7/8)	208	2.50 (1.65-3.79)	< 0.001
Mismatched unrelated ($\leq 6/8$)	23	3.99 (1.96-8.11)	< 0.001
In-vivo T-cell depletion			< 0.001
No	734	Reference	
Yes	658	0.62 (0.46-0.82)	< 0.001
<u>cGVHD</u>			
FM vs. FB for ATG=no		1.38 (1.10-1.72)	0.005
FM vs. FB for ATG=yes		0.79 (0.59-1.04)	0.09
GVHD prophylaxis			< 0.001
TAC + MMF +- other(s)	290	Reference	
TAC + MTX +- other(s)	728	0.62 (0.51-0.77)	< 0.001
TAC +/- Others (not MMF or MTX)	147	0.53 (0.39-0.73)	< 0.001
CSA + MMF +- other(s)	102	0.79 (0.56-1.10)	0.16

	N	HR (95% CI)	p-value
CSA + MTX +- other(s)	66	0.72 (0.48-1.08)	0.12
CSA +/- Others (not MMF or MTX)	25	0.49 (0.25-0.94)	0.03
In-vivo T-cell depletion			< 0.001
No	741	Reference	
Yes	666	0.65 (0.51-0.81)	< 0.001
Donor			< 0.001
HLA-identical sibling (8/8)	370	Reference	
Other related	31	2.07 (1.23-3.48)	0.006
Well-matched unrelated (8/8)	758	1.88 (1.51-2.34)	< 0.001
Partially-matched unrelated (7/8)	209	2.69 (2.03-3.56)	< 0.001
Mismatched unrelated ($\leq 6/8$)	23	1.61 (0.74-3.49)	0.23
Graft type			0.002
BM	189	Reference	
PB	1218	1.54 (1.17-2.02)	0.002
D-R CMV status			0.02
+/+	404	Reference	
+/-	140	0.72 (0.53-0.98)	0.04
-/+	522	0.81 (0.66-1.00)	0.05
-/-	296	1.08 (0.87-1.35)	0.48
Missing	45	0.85 (0.50-1.43)	0.53
Year of HCT			0.03
2001-2005	278	Reference	
2006-2010	636	0.87 (0.69-1.09)	0.23
2011-2015	493	0.72 (0.56-0.93)	0.01

Table S4.

	N	HR (95% CI)	p-value
OS			
FM vs. FB \leq 3 months		2.70 (1.80-4.07)	< 0.001
FM vs. FB >3 months		0.81 (0.68-0.95)	0.01
Age			< 0.001
18-39	91	Reference	
40-59	419	1.66 (1.21-2.29)	0.002
60-69	482	1.95 (1.42-2.67)	< 0.001
\geq 70	50	2.64 (1.72-4.07)	< 0.001
KPS			0.01
<90	415	Reference	
\geq 90	584	0.79 (0.68-0.92)	0.003
Secondary/t-AML			0.06
No	900	Reference	
Yes	126	1.27 (1.02-1.57)	0.03
Cytogenetics			< 0.001
Favorable	67	Reference	
Intermediate	572	1.49 (1.03-2.15)	0.03
Poor	328	2.13 (1.46-3.12)	< 0.001
Disease status			0.15
CR1	769	Reference	
\geq CR2	273	1.14 (0.95-1.36)	0.15
Donor			0.06
HLA-identical sibling (8/8)	294	Reference	
Other related	25	0.82 (0.48-1.40)	0.47
Well-matched unrelated (8/8)	555	1.13 (0.95-1.35)	0.16
Partially-matched unrelated (7/8)	145	1.43 (1.13-1.81)	0.003
Mismatched unrelated (\leq 6/8)	12	1.24 (0.65-2.36)	0.52
LFS			
Main effect			0.06
FB	646	Reference	
FM	390	0.87 (0.75-1.01)	0.06
KPS			0.02
<90	413	Reference	
\geq 90	580	0.81 (0.70-0.94)	0.006
Secondary/t-AML			0.03
No	896	Reference	
Yes	124	1.25 (1.01-1.55)	0.04
Cytogenetics			< 0.001
Favorable	67	Reference	
Intermediate	569	1.44 (1.03-2.01)	0.03
Poor	325	2.09 (1.48-2.97)	< 0.001

	N	HR (95% CI)	p-value
Disease status			0.02
CR1	764	Reference	
≥CR2	272	1.22 (1.03-1.44)	0.02
Donor			0.20
HLA-identical sibling (8/8)	293	Reference	
Other related	25	0.82 (0.49-1.37)	0.46
Well-matched unrelated (8/8)	553	1.14 (0.96-1.35)	0.14
Partially-matched unrelated (7/8)	142	1.28 (1.01-1.62)	0.04
Mismatched unrelated (≤6/8)	12	1.52 (0.82-2.81)	0.18
Relapse			
Main effect			< 0.001
FB	646	Reference	
FM	390	0.60 (0.49-0.73)	< 0.001
Age			0.19
18-39	91	Reference	
40-59	417	1.29 (0.92-1.80)	0.14
60-69	478	1.07 (0.76-1.50)	0.71
≥70	50	1.12 (0.65-1.92)	0.69
KPS			0.03
<90	413	Reference	
≥90	580	0.80 (0.66-0.96)	0.01
Secondary/t-AML			0.20
No	896	Reference	
Yes	124	1.24 (0.95-1.62)	0.11
Cytogenetics			< 0.001
Favorable	67	Reference	
Intermediate	569	1.64 (1.07-2.53)	0.02
Poor	325	2.68 (1.71-4.21)	< 0.001
Disease status			< 0.001
CR1	764	Reference	
≥CR2	272	1.50 (1.22-1.84)	< 0.001
Donor			0.10
HLA-identical sibling (8/8)	293	Reference	
Other related	25	0.49 (0.23-1.04)	0.06
Well-matched unrelated (8/8)	553	0.93 (0.76-1.14)	0.50
Partially-matched unrelated (7/8)	142	0.69 (0.50-0.96)	0.03
Mismatched unrelated (≤6/8)	12	1.04 (0.45-2.39)	0.93
NRM			
FM vs. FB ≤3 months		5.09 (2.83-9.14)	< 0.001
FM vs. FB >3 months		1.17 (0.88-1.57)	0.28
Age			< 0.001
18-39	91	Reference	

	N	HR (95% CI)	p-value
40-59	417	1.98 (1.14-3.46)	0.02
60-69	478	2.46 (1.42-4.27)	0.001
≥70	50	4.82 (2.43-9.58)	< 0.001
Disease status			0.30
CR1	764	Reference	
≥CR2	272	0.86 (0.64-1.15)	0.30
Donor			< 0.001
HLA-identical sibling (8/8)	293	Reference	
Other related	25	1.65 (0.77-3.53)	0.19
Well-matched unrelated (8/8)	553	2.24 (1.57-3.20)	< 0.001
Partially-matched unrelated (7/8)	142	3.96 (2.62-5.99)	< 0.001
Mismatched unrelated (≤6/8)	12	2.72 (1.01-7.31)	0.05
Year of HCT			0.08
2001-2005	170	Reference	
2006-2010	478	1.17 (0.80-1.69)	0.42
2011-2015	388	1.49 (1.00-2.21)	0.05
GVHD prophylaxis			0.03
TAC-based + MMF	206	Reference	
TAC-based + MTX	558	0.89 (0.66-1.22)	0.48
TAC +/- Others (not MMF or MTX)	102	0.72 (0.44-1.18)	0.19
CSA-based + MMF	64	1.36 (0.85-2.20)	0.20
CSA-based + MTX	51	0.91 (0.51-1.62)	0.74
CSA +/- Others (not MMF or MTX)	19	1.02 (0.39-2.63)	0.97
D-R sex match			0.002
M-M	390	Reference	
M-F	272	0.78 (0.56-1.08)	0.14
F-M	202	1.53 (1.13-2.08)	0.006
F-F	170	0.91 (0.63-1.31)	0.61
In-vivo T-cell depletion			0.02
No	544	Reference	
Yes	492	0.74 (0.57-0.96)	0.02
aGVHD II-IV			
Main effect			0.06
FB	641	Reference	
FM	388	1.24 (0.99-1.55)	0.06
GVHD prophylaxis			< 0.001
TAC + MMF +/- other(s)	204	Reference	
TAC + MTX +/- other(s)	556	0.62 (0.48-0.81)	< 0.001
TAC +/- Others (not MMF or MTX)	102	0.48 (0.31-0.74)	0.001
CSA + MMF +/- other(s)	64	1.77 (1.20-2.60)	0.004
CSA + MTX +/- other(s)	50	0.67 (0.39-1.13)	0.13
CSA +/- Others (not MMF or MTX)	19	0.96 (0.47-1.94)	0.90
Donor			0.002

	N	HR (95% CI)	p-value
HLA-identical sibling (8/8)	289	Reference	
Other related	25	1.06 (0.48-2.34)	0.88
Well-matched unrelated (8/8)	548	1.42 (1.09-1.85)	0.010
Partially-matched unrelated (7/8)	144	1.98 (1.41-2.78)	< 0.001
Mismatched unrelated ($\leq 6/8$)	12	2.62 (1.17-5.88)	0.02
In-vivo T-cell depletion			0.07
No	542	Reference	
Yes	487	0.81 (0.65-1.01)	0.07
Year of HCT			0.05
2001-2005	171	Reference	
2006-2010	476	1.22 (0.90-1.67)	0.20
2011-2015	382	1.48 (1.07-2.05)	0.02
aGVHD III-IV			
Main effect			0.008
FB	641	Reference	
FM	387	1.56 (1.12-2.17)	0.008
GVHD prophylaxis			0.05
TAC + MMF +- other(s)	204	Reference	
TAC + MTX +- other(s)	556	0.60 (0.41-0.89)	0.01
TAC +/- Others (not MMF or MTX)	102	0.54 (0.29-1.01)	0.06
CSA + MMF +- other(s)	64	1.25 (0.72-2.18)	0.42
CSA + MTX +- other(s)	50	0.57 (0.25-1.28)	0.18
CSA +/- Others (not MMF or MTX)	18	0.64 (0.19-2.10)	0.46
Donor			0.05
HLA-identical sibling (8/8)	289	Reference	
Other related	25	2.08 (0.80-5.43)	0.13
Well-matched unrelated (8/8)	548	1.23 (0.82-1.83)	0.32
Partially-matched unrelated (7/8)	143	1.81 (1.10-2.97)	0.02
Mismatched unrelated ($\leq 6/8$)	12	3.36 (1.28-8.87)	0.01
In-vivo T-cell depletion			0.007
No	542	Reference	
Yes	486	0.63 (0.45-0.88)	0.007
cGVHD			
Main effect			0.42
FB	647	Reference	
FM	390	1.09 (0.89-1.33)	0.42
GVHD prophylaxis			< 0.001
TAC + MMF +- other(s)	208	Reference	
TAC + MTX +- other(s)	557	0.59 (0.46-0.74)	< 0.001
TAC +/- Others (not MMF or MTX)	102	0.59 (0.42-0.84)	0.003
CSA + MMF +- other(s)	65	0.91 (0.62-1.35)	0.64
CSA + MTX +- other(s)	51	0.66 (0.42-1.04)	0.07
CSA +/- Others (not MMF or MTX)	19	0.39 (0.19-0.80)	0.010

	N	HR (95% CI)	p-value
In-vivo T-cell depletion (ATG/ Alemtuzumab)			< 0.001
No	546	Reference	
Yes	491	0.52 (0.43-0.64)	< 0.001
Donor			
HLA-identical sibling (8/8)	293	Reference	
Other related	25	1.60 (0.90-2.86)	0.11
Well-matched unrelated (8/8)	552	1.80 (1.41-2.31)	< 0.001
Partially-matched unrelated (7/8)	144	2.61 (1.91-3.57)	< 0.001
Mismatched unrelated (\leq 6/8)	12	1.62 (0.69-3.77)	0.27
Graft type			0.003
BM	128	Reference	
PB	909	1.63 (1.19-2.24)	0.003
D-R CMV status			0.04
+/+	303	Reference	
+/-	109	0.77 (0.55-1.07)	0.12
-/+	372	0.83 (0.66-1.05)	0.12
-/-	223	1.15 (0.90-1.48)	0.27
Year of HCT			0.02
2001-2005	172	Reference	
2006-2010	480	0.81 (0.62-1.05)	0.11
2011-2015	385	0.67 (0.50-0.89)	0.006

Table S5.

	N	HR (95% CI)	p-value
OS			
FM vs. FB ≤3 months		2.81 (1.66-4.75)	< 0.001
FM vs. FB >3 months		0.81 (0.64-1.02)	0.07
HCT-CI group			0.23
0	149	Reference	
1	109	1.26 (0.93-1.72)	0.13
2	74	1.24 (0.87-1.78)	0.24
3+	317	1.32 (1.01-1.72)	0.04*
Age			0.001
18-39	43	Reference	
40-59	234	2.17 (1.32-3.55)	0.002
60-69	334	2.07 (1.27-3.38)	0.004
≥70	38	3.34 (1.83-6.08)	< 0.001
KPS			0.002
<90	307	Reference	
≥90	336	0.71 (0.58-0.86)	< 0.001
Secondary/t-AML			0.35
No	573	Reference	
Yes	67	1.14 (0.82-1.56)	0.44
Cytogenetics			0.004
Favorable	38	Reference	
Intermediate	357	1.46 (0.88-2.41)	0.14
Poor	230	2.01 (1.20-3.36)	0.008
Disease status			0.61
CR1	526	Reference	
≥CR2	123	1.07 (0.83-1.39)	0.61
Donor			0.29
HLA-identical sibling (8/8)	233	Reference	
Well-matched unrelated (8/8)	314	1.19 (0.96-1.48)	0.11
Partially-matched unrelated (7/8)	69	1.21 (0.88-1.68)	0.24
Mismatched unrelated (≤6/8)	3	0.65 (0.20-2.13)	0.48
LFS			
Main effect			0.45
FB	439	Reference	
FM	208	0.93 (0.76-1.13)	0.45
HCT-CI group			0.35
0	149	Reference	
1	109	1.19 (0.88-1.60)	0.25
2	74	1.35 (0.96-1.90)	0.08
3+	315	1.16 (0.90-1.50)	0.24

	N	HR (95% CI)	p-value
KPS			0.004
<90	306	Reference	
≥90	335	0.73 (0.61-0.88)	0.001
Secondary/t-AML			0.39
No	572	Reference	
Yes	66	1.16 (0.85-1.59)	0.34
Cytogenetics			0.002
Favorable	38	Reference	
Intermediate	357	1.45 (0.92-2.28)	0.11
Poor	228	2.00 (1.26-3.17)	0.003
Disease status			0.11
CR1	524	Reference	
≥CR2	123	1.21 (0.95-1.54)	0.11
Donor			0.53
HLA-identical sibling	232	Reference	
Well-matched unrelated (8/8)	314	1.16 (0.94-1.42)	0.16
Partially-matched unrelated (7/8)	68	1.06 (0.77-1.45)	0.74
Mismatched unrelated (≤6/8)	3	0.97 (0.31-3.05)	0.95
Relapse			
Main effect			< 0.001
FB	439	Reference	
FM	208	0.53 (0.40-0.71)	< 0.001
HCT-CI group			0.19
0	149	Reference	
1	109	1.16 (0.81-1.67)	0.43
2	74	1.44 (0.95-2.17)	0.08
3+	315	0.97 (0.71-1.34)	0.86
Age			0.05
18-39	43	Reference	
40-59	233	1.76 (1.04-2.98)	0.04
60-69	333	1.32 (0.78-2.23)	0.30
≥70	38	1.49 (0.71-3.10)	0.29
KPS			0.009
<90	306	Reference	
≥90	335	0.69 (0.55-0.88)	0.003
Secondary/t-AML			0.50
No	572	Reference	
Yes	66	1.20 (0.81-1.78)	0.37
Missing	9	0.60 (0.15-2.46)	0.48
Cytogenetics			< 0.001
Favorable	38	Reference	
Intermediate	357	1.90 (1.01-3.58)	0.05
Poor	228	2.87 (1.51-5.48)	0.001

	N	HR (95% CI)	p-value
Missing	24	2.23 (0.95-5.25)	0.07
Disease status			0.03
CR1	524	Reference	
≥CR2	123	1.41 (1.04-1.90)	0.03
Donor			0.06
HLA-identical sibling (8/8)	232	Reference	
Well-matched unrelated (8/8)	314	0.90 (0.70-1.16)	0.42
Partially-matched unrelated (7/8)	68	0.53 (0.33-0.86)	0.009
Mismatched unrelated (≤6/8)	3	0.38 (0.05-2.84)	0.35
NRM			
FM vs. FB ≤3 months		4.60 (2.26-9.37)	< 0.001
FM vs. FB >3 months		1.41 (0.96-2.07)	0.08
			0.02
HCT-CI group			
0	149	Reference	
1	109	1.11 (0.65-1.88)	0.71
2	74	1.29 (0.70-2.38)	0.41
3+	315	1.80 (1.19-2.72)	0.005
Age			0.001
18-39	43	Reference	
40-59	233	2.76 (1.16-6.59)	0.02
60-69	333	2.90 (1.25-6.76)	0.01
≥70	38	6.55 (2.46-17.5)	< 0.001
Disease status			0.83
CR1	524	Reference	
≥CR2	123	0.95 (0.63-1.45)	0.83
Donor			< 0.001
HLA-identical sibling (8/8)	232	Reference	
Well-matched unrelated (8/8)	314	2.47 (1.60-3.80)	< 0.001
Partially-matched unrelated (7/8)	68	3.63 (2.10-6.27)	< 0.001
Mismatched unrelated (≤6/8)	3	1.75 (0.38-8.02)	0.47
Year of HCT			0.05
2006-2010	267	Reference	
2011-2015	380	1.41 (1.00-1.97)	0.05
GVHD prophylaxis			0.02
TAC-based + MMF	109	Reference	
TAC-based + MTX	388	1.15 (0.74-1.79)	0.54
CSA-based + MMF	24	2.06 (1.00-4.23)	0.05
CSA-based + MTX	24	1.14 (0.48-2.70)	0.77
D-R sex match			0.09
M-M	239	Reference	
M-F	175	0.83 (0.55-1.25)	0.36
F-M	132	1.39 (0.92-2.10)	0.11

	N	HR (95% CI)	p-value
F-F	100	0.79 (0.47-1.32)	0.37
ATG/alemtuzumab			0.02
Yes	275	Reference	
No	372	1.55 (1.09-2.20)	0.02

Table S6.

	FM vs. FB (Full; sib/WM –URD cohort) HR, (95% CI)	FM vs. FB (CR; sib/WM –URD cohort) HR, (95% CI)
OS		
≤ 3 months	1.47 (1.04-2.07), p=0.03	2.19 (1.23-3.92), p=0.008
> 3 months	0.82 (0.70-0.97), p=0.02	0.80 (0.64-0.99), p=0.04
LFS	0.81 (0.71-0.93), p=0.003	0.81 (0.67-0.98), p=0.03
NRM		
≤ 3 months	3.71 (2.19-6.28), p<0.001	4.54 (2.06-9.99), p<0.001
> 3 months	1.25 (0.92-1.68), p=0.15	1.53 (1.05-2.24), p=0.03
Relapse	0.61 (0.52-0.73), p<0.001	0.51 (0.39-0.67), p<0.001
GRFS	0.97 (0.85-1.11), p=0.71	0.97 (0.81-1.18), p=0.79

* Significant *p*-value;

HR: Hazard ratio; CR: complete remission; OS: overall survival; LFS: Leukemia-free survival; NRM: non-relapse mortality; GRFS: GVHD and relapse-free survival.

Table S7.

Outcomes	n	FB (n = 791)		FM (n = 622)	
		Prob,% (95% CI)	n	Prob,% (95% CI)	P Value
ANC	789		616		0.014
1 months	5	98.5 (97.5-99.2)	16	94.1 (92.2-95.9)	<0.001
2 months	2	98.9 (98.0-99.5)	4	95.4 (93.7-97.0)	<0.001
100-day	2	98.9 (98.0-99.5)	1	95.6 (93.8-97.1)	<0.001
Platelet	790		616		<0.001
1 months	72	89.9 (87.7-91.9)	125	75.0 (71.5-78.3)	<0.001
2 months	30	93.6 (91.8-95.2)	39	84.9 (81.9-87.6)	<0.001
100-day	17	94.0 (92.2-95.6)	23	86.2 (83.3-88.8)	<0.001

Table S8.

	FM	FB
Number of patients	622	791
Number of death	465 (75)	589 (74)
Cause of death		
Primary disease	188 (40)	348 (59)
Graft failure	2 (<1)	2 (<1)
GVHD	55 (12)	55 (9)
Infection	80 (17)	46 (8)
Interstitial Pneumonitis	9 (2)	10 (2)
ARDS	4 (<1)	7 (1)
Organ failure	64 (14)	41 (7)
Secondary malignancy	5 (1)	15 (3)
Hemorrhage	7 (2)	8 (1)
Accident/suicide	1 (<1)	1 (<1)
Vascular	2 (<1)	3 (<1)
Other	27 (6)	33 (6)
Missing	21 (4)	20 (3)