

# ***TET2* mutation does not impact the prognosis of adult acute myeloid leukemia patients receiving a hematopoietic stem cell transplantation in first remission: similar outcome following matched sibling and unrelated versus haploidentical donor transplants in a multi-center retrospective analysis from the Global Committee and the Acute Leukemia Working Party of the European Society for Blood and Marrow Transplantation**

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Table S1 Characteristics of the patients *TET2* unmutated and mutated.

Variables	Modalities	N=755	Neg (N=632)	Pos (N=123)	p value
Year of HSCT	median [IQR]	2019 [2018-2021]	2019 [2018-2021]	2019 [2018-2021]	0.14
	(range)	(2013-2022)	(2013-2022)	(2015-2022)	
Age at HSCT	median [IQR]	55.2 [43.5-61.9]	54 [42.8-61.4]	59.5 [47.9-65.1]	< 0.001
	(range)	(18.2-75.1)	(18.5-75.1)	(18.2-74.9)	
Patient sex	Female, N(%)	380 (50.3)	322 (50.9)	58 (47.2)	0.44
	Male, N(%)	375 (49.7)	310 (49.1)	65 (52.8)	
Karnofsky score	< 90, N(%)	142 (19.8)	111 (18.4)	31 (27.4)	0.03
	>= 90, N(%)	574 (80.2)	492 (81.6)	82 (72.6)	
	missing, N	39	29	10	
AML type	de novo, N(%)	658 (87.4)	556 (88.1)	102 (83.6)	0.17
	secAML, N(%)	95 (12.6)	75 (11.9)	20 (16.4)	
	missing, N	2	1	1	
MRD	Negative, N(%)	272 (65.4)	222 (63.1)	50 (78.1)	0.02
	Positive, N(%)	144 (34.6)	130 (36.9)	14 (21.9)	
	missing, N	339	280	59	
Number of <i>TET2</i> mutations	1, N(%)			96 (78)	Not done
	2, N(%)			21 (17.1)	
	3, N(%)			4 (3.3)	
	4, N(%)			2 (1.6)	
<i>TET2</i> max VAF	median [IQR]			47 [42-51]	Not done
	(range)			(1-100)	
	missing, N			30	
Chromosomal analysis	Abnormal, N(%)	363 (51.4)	314 (52.8)	49 (44.1)	0.09
	Normal, N(%)	343 (48.6)	281 (47.2)	62 (55.9)	

	missing, N	49	37	12	
ELN2022 cytogenetic	Favorable, N(%)	33 (4.7)	28 (4.8)	5 (4.6)	0.32
	Intermediate, N(%)	487 (70.1)	405 (69)	82 (75.9)	
	Adverse, N(%)	175 (25.2)	154 (26.2)	21 (19.4)	
	missing, N	60	45	15	
<i>NPM1</i>	Negative, N(%)	573 (78.4)	494 (79.7)	79 (71.2)	0.04
	Positive, N(%)	158 (21.6)	126 (20.3)	32 (28.8)	
	missing, N	24	12	12	
<i>FLT3-ITD</i>	Negative, N(%)	528 (74.6)	451 (74.5)	77 (74.8)	0.96
	Positive, N(%)	180 (25.4)	154 (25.5)	26 (25.2)	
	missing, N	47	27	20	
<i>DNMT3A</i>	Negative, N(%)	569 (76.8)	484 (77.6)	85 (72.6)	0.25
	Positive, N(%)	172 (23.2)	140 (22.4)	32 (27.4)	
	missing, N	14	8	6	
<i>CEBPA</i>	Negative, N(%)	554 (93.6)	458 (93.7)	96 (93.2)	0.86
	Positive, N(%)	38 (6.4)	31 (6.3)	7 (6.8)	
	missing, N	163	143	20	
<i>RUNX1</i>	Negative, N(%)	632 (83.8)	528 (83.7)	104 (84.6)	0.81
	Positive, N(%)	122 (16.2)	103 (16.3)	19 (15.4)	
	missing, N	1	1	0	
<i>ASXL1</i>	Negative, N(%)	679 (89.9)	576 (91.1)	103 (83.7)	< 0.001
	Positive, N(%)	76 (10.1)	56 (8.9)	20 (16.3)	
<i>SRSF2</i>	Negative, N(%)	673 (90.2)	570 (91.2)	103 (85.1)	0.04
	Positive, N(%)	73 (9.8)	55 (8.8)	18 (14.9)	
	missing, N	9	7	2	
<i>TP53</i>	Negative, N(%)	689 (93.2)	577 (93.2)	112 (93.3)	0.96

	Positive, N(%)	50 (6.8)	42 (6.8)	8 (6.7)	
	missing, N	16	13	3	
<i>BCOR</i>	Negative, N(%)	490 (91.8)	409 (91.7)	81 (92)	0.92
	Positive, N(%)	44 (8.2)	37 (8.3)	7 (8)	
	missing, N	221	186	35	
<i>EZH2</i>	Negative, N(%)	638 (96.2)	537 (97.3)	101 (91)	0.004
	Positive, N(%)	25 (3.8)	15 (2.7)	10 (9)	
	missing, N	92	80	12	
<i>SF3B1</i>	Negative, N(%)	714 (95.7)	594 (95)	120 (99.2)	0.04
	Positive, N(%)	32 (4.3)	31 (5)	1 (0.8)	
	missing, N	9	7	2	
<i>STAG2</i>	Negative, N(%)	464 (92.6)	387 (93)	77 (90.6)	0.43
	Positive, N(%)	37 (7.4)	29 (7)	8 (9.4)	
	missing, N	254	216	38	
<i>U2AF1</i>	Negative, N(%)	691 (96.9)	579 (96.7)	112 (98.2)	0.56
	Positive, N(%)	22 (3.1)	20 (3.3)	2 (1.8)	
	missing, N	42	33	9	
<i>ZRSR2</i>	Negative, N(%)	563 (98.3)	458 (98.3)	105 (98.1)	1
	Positive, N(%)	10 (1.7)	8 (1.7)	2 (1.9)	
	missing, N	182	166	16	
Source of cells	PB, N(%)	705 (93.4)	595 (94.1)	110 (89.4)	Not done
	BM, N(%)	41 (5.4)	30 (4.7)	11 (8.9)	
	BM+PB, N(%)	1 (0.1)	1 (0.2)	0 (0)	
	CB, N(%)	7 (0.9)	5 (0.8)	2 (1.6)	
	Double CB, N(%)	1 (0.1)	1 (0.2)	0 (0)	
Donor type	Matched sibling donor,	242 (32.1)	208 (33)	34 (27.6)	Not done

	N(%)				
	Matched other relative,				
	N(%)	21 (2.8)	20 (3.2)	1 (0.8)	
	Syngeneic, N(%)	2 (0.3)	1 (0.2)	1 (0.8)	
	Haplo, N(%)	143 (19)	111 (17.6)	32 (26)	
	MMR (missing HLA), N(%)	2 (0.3)	2 (0.3)	0 (0)	
	MMR 1 locus, N(%)	5 (0.7)	4 (0.6)	1 (0.8)	
	UD 10/10, N(%)	256 (34)	218 (34.6)	38 (30.9)	
	UD 9/10, N(%)	43 (5.7)	33 (5.2)	10 (8.1)	
	UD <=8/10, N(%)	3 (0.4)	2 (0.3)	1 (0.8)	
	UD (missing HLA), N(%)	29 (3.9)	26 (4.1)	3 (2.4)	
	UCB 5/6, N(%)	1 (0.1)	1 (0.2)	0 (0)	
	UCB <=4/6, N(%)	3 (0.4)	2 (0.3)	1 (0.8)	
	UCB (missing HLA), N(%)	2 (0.3)	1 (0.2)	1 (0.8)	
	Double UCB, N(%)	1 (0.1)	1 (0.2)	0 (0)	
	missing, N	2	2	0	
Donor type	Matched relative, N(%)	265 (35.2)	229 (36.3)	36 (29.3)	Not done
	Mismatched relative, N(%)	150 (19.9)	117 (18.6)	33 (26.8)	
	UD 10/10, N(%)	256 (34)	218 (34.6)	38 (30.9)	
	UD<=9/10, N(%)	44 (5.8)	35 (5.6)	9 (7.3)	
	UD (missing HLA), N(%)	31 (4.1)	26 (4.1)	5 (4.1)	
	UCB, N(%)	7 (0.9)	5 (0.8)	2 (1.6)	
	missing, N	2	2	0	
Female to male	No, N(%)	640 (84.8)	533 (84.3)	107 (87)	0.45
	Yes, N(%)	115 (15.2)	99 (15.7)	16 (13)	
Patient CMV	Negative, N(%)	195 (26.5)	171 (27.5)	24 (21.2)	0.17

	Positive, N(%)	540 (73.5)	451 (72.5)	89 (78.8)	
	missing, N	20	10	10	
CMV donor to patient	Neg to Neg, N(%)	130 (17.8)	112 (18.1)	18 (16.2)	0.16
	Neg to Pos, N(%)	164 (22.4)	140 (22.6)	24 (21.6)	
	Pos to Neg, N(%)	62 (8.5)	58 (9.4)	4 (3.6)	
	Pos to Pos, N(%)	375 (51.3)	310 (50)	65 (58.6)	
	missing, N	24	12	12	
Conditioning regimen	BuCy based, N(%)	78 (10.4)	67 (10.6)	11 (8.9)	Not done
	BuFlu based, N(%)	250 (33.2)	215 (34.1)	35 (28.5)	
	BuFluThio based, N(%)	212 (28.2)	162 (25.7)	50 (40.7)	
	FluMel based, N(%)	67 (8.9)	61 (9.7)	6 (4.9)	
	TBI based, N(%)	87 (11.6)	76 (12.1)	11 (8.9)	
	TreoFlu based, N(%)	50 (6.6)	40 (6.3)	10 (8.1)	
	Other, N(%)	9 (1.2)	9 (1.4)	0 (0)	
	missing, N	2	2	0	
Myeloablativity	No, N(%)	401 (54.3)	334 (53.5)	67 (58.8)	0.3
	Yes, N(%)	337 (45.7)	290 (46.5)	47 (41.2)	
	missing, N	17	8	9	
Invivo TCD	No, N(%)	331 (44.2)	277 (44.1)	54 (44.6)	0.92
	Yes, N(%)	418 (55.8)	351 (55.9)	67 (55.4)	
	missing, N	6	4	2	
Use of PTCy	No, N(%)	495 (66.3)	423 (67.6)	72 (59.5)	0.09
	Yes, N(%)	252 (33.7)	203 (32.4)	49 (40.5)	
	missing, N	8	6	2	
GVHD prevention	CSA+/-SIRO/TACRO, N(%)	71 (9.5)	60 (9.6)	11 (9.1)	Not done
	CSA+MMF+/-SIRO/TACRO,	222 (29.6)	169 (26.9)	53 (43.8)	

N(%)			
CSA+MTX+/-SIRO/TACRO,			
N(%)	172 (23)	154 (24.5)	18 (14.9)
MMF+/-SIRO/TACRO, N(%)	201 (26.8)	182 (29)	19 (15.7)
MTX+/-SIRO/TACRO, N(%)	20 (2.7)	17 (2.7)	3 (2.5)
MTX+MMF+TACRO, N(%)	21 (2.8)	17 (2.7)	4 (3.3)
SIRO/TACRO, N(%)	17 (2.3)	15 (2.4)	2 (1.7)
Other, N(%)	25 (3.3)	14 (2.2)	11 (9.1)
missing, N	6	4	2

**Abbreviations:** Neg, negative; Pos, positive; HSCT, hematopoietic stem cell transplantation; IQR, interquartile range; AML, acute myeloid leukemia; MRD, measurable residual disease; PB, peripheral blood; CB, cord blood; BM, bone marrow; CB, cord blood; MSD, matched sibling donor; Haplo, haploidentical donor; UD, unrelated donor; MMR, mismatched relative donor; UCB, unrelated cord blood; CMV, cytomegalovirus; BU, busulfan; Cy, cyclophosphamide; Flu, fludarabine; Thio, thiotepa; Mel, melphalan; TBI, total body irradiation; Treo, treosulfan; TCD, T-cell depletion; PTCY, post-transplant cyclophosphamide; GVHD, graft-versus-host disease; CSA, cyclosporine A; SIRO, sirolimus; TACRO, tacrolimus; MMF, mycophenolate mofetil; MTX, methotrexate.

Table S2 Characteristics of the two pair-matched groups *TET2* unmutated and mutated.

Variables	Modalities	N=436	Neg (N=320)	Pos (N=116)	p value
Chromosomal analysis	Abnormal, N(%)	207 (51.1)	162 (54)	45 (42.9)	0.049
	Normal, N(%)	198 (48.9)	138 (46)	60 (57.1)	
	missing, N	31	20	11	
<i>NPM1</i>	Negative, N(%)	330 (77.8)	255 (80.2)	75 (70.8)	0.04
	Positive, N(%)	94 (22.2)	63 (19.8)	31 (29.2)	
	missing, N	12	2	10	
<i>FLT3-ITD</i>	Negative, N(%)	298 (72.7)	225 (72.3)	73 (73.7)	0.79

	Positive, N(%)	112 (27.3)	86 (27.7)	26 (26.3)	
	missing, N	26	9	17	
<i>DNMT3A</i>	Negative, N(%)	311 (72.3)	231 (72.4)	80 (72.1)	0.94
	Positive, N(%)	119 (27.7)	88 (27.6)	31 (27.9)	
	missing, N	6	1	5	
<i>CEBPA</i>	Negative, N(%)	327 (95.1)	235 (95.5)	92 (93.9)	0.58
	Positive, N(%)	17 (4.9)	11 (4.5)	6 (6.1)	
	missing, N	92	74	18	
<i>RUNX1</i>	Negative, N(%)	364 (83.7)	267 (83.7)	97 (83.6)	0.98
	Positive, N(%)	71 (16.3)	52 (16.3)	19 (16.4)	
	missing, N	1	1	0	
<i>ASXL1</i>	Negative, N(%)	386 (88.5)	288 (90)	98 (84.5)	0.11
	Positive, N(%)	50 (11.5)	32 (10)	18 (15.5)	
<i>SRSF2</i>	Negative, N(%)	380 (88.4)	283 (89.6)	97 (85.1)	0.2
	Positive, N(%)	50 (11.6)	33 (10.4)	17 (14.9)	
	missing, N	6	4	2	
<i>TP53</i>	Negative, N(%)	391 (92)	286 (91.7)	105 (92.9)	0.67
	Positive, N(%)	34 (8)	26 (8.3)	8 (7.1)	
	missing, N	11	8	3	
<i>BCOR</i>	Negative, N(%)	295 (91.9)	218 (92)	77 (91.7)	0.93
	Positive, N(%)	26 (8.1)	19 (8)	7 (8.3)	
	missing, N	115	83	32	
<i>EZH2</i>	Negative, N(%)	368 (94.8)	272 (96.5)	96 (90.6)	0.02
	Positive, N(%)	20 (5.2)	10 (3.5)	10 (9.4)	
	missing, N	48	38	10	
<i>SF3B1</i>	Negative, N(%)	414 (96.3)	301 (95.3)	113 (99.1)	0.08



	Positive, N(%)	16 (3.7)	15 (4.7)	1 (0.9)	
	missing, N	6	4	2	
<i>STAG2</i>	Negative, N(%)	280 (92.7)	206 (93.2)	74 (91.4)	0.58
	Positive, N(%)	22 (7.3)	15 (6.8)	7 (8.6)	
	missing, N	134	99	35	
<i>U2AF1</i>	Negative, N(%)	398 (96.8)	291 (96.4)	107 (98.2)	0.52
	Positive, N(%)	13 (3.2)	11 (3.6)	2 (1.8)	
	missing, N	25	18	7	
<i>ZRSR2</i>	Negative, N(%)	335 (98.5)	236 (98.7)	99 (98)	0.64
	Positive, N(%)	5 (1.5)	3 (1.3)	2 (2)	
	missing, N	96	81	15	
Patient CMV	Negative, N(%)	108 (25.7)	86 (27.3)	22 (20.8)	0.18
	Positive, N(%)	313 (74.3)	229 (72.7)	84 (79.2)	
	missing, N	15	5	10	
Conditioning regimen	BuCy based, N(%)	31 (7.1)	20 (6.2)	11 (9.5)	Not done
	BuFlu based, N(%)	150 (34.4)	116 (36.2)	34 (29.3)	
	BuFluThio based, N(%)	130 (29.8)	85 (26.6)	45 (38.8)	
	FluMel based, N(%)	43 (9.9)	37 (11.6)	6 (5.2)	
	TBI based, N(%)	43 (9.9)	33 (10.3)	10 (8.6)	
	TreoFlu based, N(%)	36 (8.3)	26 (8.1)	10 (8.6)	
	Other, N(%)	3 (0.7)	3 (0.9)	0 (0)	
GVHD prevention	CSA+/-SIRO/TACRO, N(%)	39 (9)	28 (8.8)	11 (9.6)	Not done
	CSA+MMF+/-SIRO/TACRO, N(%)	133 (30.6)	85 (26.6)	48 (42.1)	
	CSA+MTX+/-SIRO/TACRO, N(%)	98 (22.6)	80 (25)	18 (15.8)	

MMF+/-SIRO/TACRO, N(%)	118 (27.2)	101 (31.6)	17 (14.9)
MTX+/-SIRO/TACRO, N(%)	12 (2.8)	9 (2.8)	3 (2.6)
MTX+MMF+TACRO, N(%)	10 (2.3)	6 (1.9)	4 (3.5)
SIRO/TACRO, N(%)	8 (1.8)	6 (1.9)	2 (1.8)
Other, N(%)	16 (3.7)	5 (1.6)	11 (9.6)
missing, N	2	0	2

**Abbreviations:** Neg, negative; Pos, positive; MSD, matched sibling donor; Haplo, haploidentical donor; UD, unrelated donor; MMR, mismatched relative donor; UCB, unrelated cord blood; CMV, cytomegalovirus; BU, busulfan; Cy, cyclophosphamide; Flu, fludarabine; Thio, thiotepa; Mel, melphalan; TBI, total body irradiation; Treo, treosulfan; TCD, T-cell depletion; PTCY, post-transplant cyclophosphamide; GVHD, graft-versus-host disease; CSA, cyclosporine A; SIRO, sirolimus; TACRO, tacrolimus; MMF, mycophenolate mofetil; MTX, methotrexate.

**Table S3 Characteristics of 644 adult acute myeloid leukemia patients with *TET2* mutations**

Variables	Modalities	N=644	MSD (N=149)	Haplo (N=176)	UD 10/10		p value
					(N=268)	UD 9/10 (N=51)	
Year of HSCT	median [IQR] (range)	2020 [2018-2021] (2013-2022)	2019 [2018-2021] (2014-2022)	2020 [2018-2021] (2016-2022)	2020 [2019-2021] (2013-2022)	2020 [2019-2021] (2016-2022)	0.03
Age at HSCT	median [IQR] (range)	59.4 [48.4-65.9] (18.1-86.3)	57.5 [47.6-62.5] (22.7-73.7)	52.8 [42.6-62.2] (20-86.3)	62.2 [55.6-68] (18.1-74.9)	60.7 [49.1-64.9] (25.7-73.5)	< 0.001
Age at diagnosis	median [IQR] (range)	58.9 [47.8-65.4] (17.5-85.9)	57 [47.1-62] (22.4-73.2)	52.2 [42.1-61.3] (19.5-85.9)	61.7 [55.2-67.6] (17.5-74.7)	60.3 [48.7-64.4] (25.2-73)	< 0.001
Months between diagnosis and HSCT	median [IQR] (range)	4.9 [3.8-6.2] (0.9-89.9)	4.4 [3.6-5.5] (0.9-71.6)	5.2 [4.1-6.9] (2-89.9)	5.1 [3.9-6.2] (1.6-37.7)	5 [3.9-6.1] (2.1-10.4)	0.005
AML type	de novo, N(%)	556 (86.3)	130 (87.2)	161 (91.5)	225 (84)	40 (78.4)	0.045

MRD	secAML, N(%)	88 (13.7)	19 (12.8)	15 (8.5)	43 (16)	11 (21.6)	0.28
	Negative, N(%)	181 (54.4)	38 (56.7)	42 (60)	87 (49.7)	14 (66.7)	
	Positive, N(%)	152 (45.6)	29 (43.3)	28 (40)	88 (50.3)	7 (33.3)	
	missing, N	311	82	106	93	30	
Cytogenetic classification	Fav/Interm, N(%)	498 (83.7)	115 (84.6)	130 (82.3)	214 (84.9)	39 (79.6)	0.76
	Adverse, N(%)	97 (16.3)	21 (15.4)	28 (17.7)	38 (15.1)	10 (20.4)	
	missing, N	49	13	18	16	2	
Cytogenetic abnormality	t(8;21) , N(%)	16 (2.7)	5 (3.7)	6 (3.8)	5 (2)	0 (0)	Not done
	inv(16) , N(%)	6 (1)	1 (0.7)	4 (2.5)	1 (0.4)	0 (0)	
	t(15;17) , N(%)	1 (0.2)	1 (0.7)	0 (0)	0 (0)	0 (0)	
	Normal K, N(%)	355 (59.7)	89 (65.4)	94 (59.5)	149 (59.1)	23 (46.9)	
	t(9;11) , N(%)	4 (0.7)	1 (0.7)	1 (0.6)	2 (0.8)	0 (0)	
	Other interm abnormality, N(%)	116 (19.5)	18 (13.2)	25 (15.8)	57 (22.6)	16 (32.7)	
	monosomal/complex, N(%)	39 (6.6)	12 (8.8)	10 (6.3)	13 (5.2)	4 (8.2)	
	mono(7) , N(%)	20 (3.4)	2 (1.5)	7 (4.4)	10 (4)	1 (2)	
	mono(5)/del(5q) , N(%)			4 (2.5)			
				3 (1.9)			
	11q23 not	14 (2.4)	3 (2.2)	2 (1.3)	5 (2)	2 (4.1)	
	t(9;11) , N(%)	12 (2)	3 (2.2)		5 (2)	1 (2)	
	abn(17p) , N(%)	6 (1)	1 (0.7)		1 (0.4)	2 (4.1)	

	abn(3q) , N(%)	3 (0.5)	0 (0)	1 (0.6)	2 (0.8)	0 (0)	
	t(6;9) , N(%)	2 (0.3)	0 (0)	1 (0.6)	1 (0.4)	0 (0)	
	t(9;22) , N(%)	1 (0.2)	0 (0)	0 (0)	1 (0.4)	0 (0)	
	missing, N	49	13	18	16	2	
Patient sex	Female, N(%)	275 (42.8)	63 (42.6)	73 (41.5)	114 (42.5)	25 (50)	0.75
	Male, N(%)	367 (57.2)	85 (57.4)	103 (58.5)	154 (57.5)	25 (50)	
	missing, N	2	1	0	0	1	
Donor sex	Female, N(%)	209 (32.5)	61 (40.9)	68 (38.6)	66 (24.7)	14 (27.5)	0.001
	Male, N(%)	434 (67.5)	88 (59.1)	108 (61.4)	201 (75.3)	37 (72.5)	
	missing, N	1	0	0	1	0	
Female donor to Male recipient	No, N(%)	536 (83.6)	114 (77)	137 (77.8)	241 (90.3)	44 (88)	< 0.001
	Yes, N(%)	105 (16.4)	34 (23)	39 (22.2)	26 (9.7)	6 (12)	
	missing, N	3	1	0	1	1	
CMV patient	Negative, N(%)	233 (40)	45 (32.8)	79 (57.7)	93 (35.5)	16 (34.8)	< 0.001
	Positive, N(%)	349 (60)	92 (67.2)	58 (42.3)	169 (64.5)	30 (65.2)	
	missing, N	62	12	39	6	5	
CMV donor	Negative, N(%)	313 (53.8)	64 (47.1)	103 (75.2)	123 (46.9)	23 (48.9)	< 0.001
	Positive, N(%)	269 (46.2)	72 (52.9)	34 (24.8)	139 (53.1)	24 (51.1)	
	missing, N	62	13	39	6	4	
CMV donor to patient	Neg to Neg, N(%)	194 (33.7)	41 (30.1)	76 (56.7)	66 (25.4)	11 (23.9)	Not done
	Neg to Pos, N(%)	115 (20)	23 (16.9)	24 (17.9)	56 (21.5)	12 (26.1)	
	Pos to Neg, N(%)	35 (6.1)	3 (2.2)	2 (1.5)	25 (9.6)	5 (10.9)	
	Pos to Pos, N(%)	232 (40.3)	69 (50.7)	32 (23.9)	113 (43.5)	18 (39.1)	
	missing, N	68	13	42	8	5	

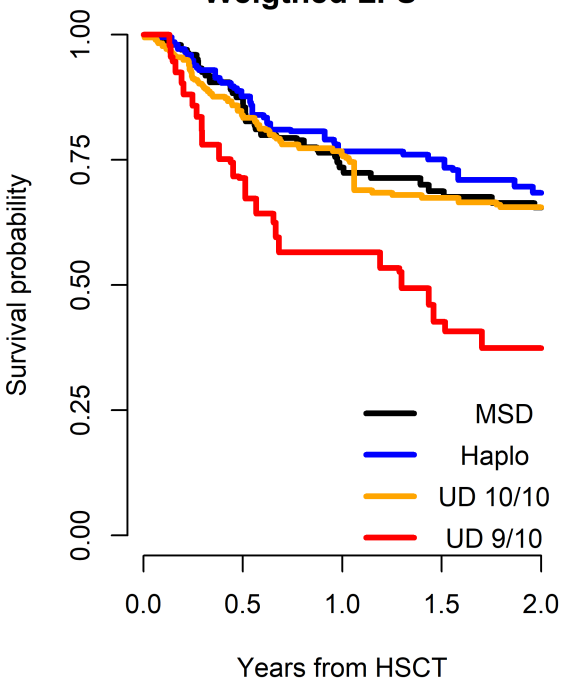
Source of cells	PB alone, N(%)	546 (84.8)	141 (94.6)	97 (55.1)	260 (97)	48 (94.1)	< 0.001
	Other, N(%)	98 (15.2)	8 (5.4)	79 (44.9)	8 (3)	3 (5.9)	
Myeloablative regimen	No, N(%)	314 (53.3)	69 (50.4)	65 (45.8)	148 (56.5)	32 (66.7)	0.04
	Yes, N(%)	275 (46.7)	68 (49.6)	77 (54.2)	114 (43.5)	16 (33.3)	
	missing, N	55	12	34	6	3	
Conditioning regimen	BuFlu based, N(%)	194 (30.2)	58 (38.9)	17 (9.8)	100 (37.3)	19 (37.3)	Not done
	BuFluThio based, N(%)	53 (8.3)	7 (4.7)	32 (18.4)	12 (4.5)	2 (3.9)	
	BuCy+Arac based, N(%)	97 (15.1)	20 (13.4)	73 (42)	3 (1.1)	1 (2)	
	BuCy based, N(%)	39 (6.1)	15 (10.1)	12 (6.9)	7 (2.6)	5 (9.8)	
	TreoFlu based, N(%)	101 (15.7)	20 (13.4)	7 (4)	65 (24.3)	9 (17.6)	
	TBI based, N(%)	81 (12.6)	10 (6.7)	25 (14.4)	41 (15.3)	5 (9.8)	
	FluMel based, N(%)	53 (8.3)	16 (10.7)	5 (2.9)	25 (9.3)	7 (13.7)	
	Other, N(%)	24 (3.7)	3 (2)	3 (1.7)	15 (5.6)	3 (5.9)	
	missing, N	2	0	2	0	0	
	CSA+MMF, N(%)	206 (32.3)	36 (24.3)	41 (23.8)	105 (39.3)	24 (47.1)	
CSA+MTX, N(%)	160 (25.1)	54 (36.5)	1 (0.6)	93 (34.8)	12 (23.5)		
CSA+MTX+MM	110 (17.2)	12 (8.1)	91 (52.9)	3 (1.1)	4 (7.8)		

	F, N(%)						
	CSA, N(%)	50 (7.8)	19 (12.8)	3 (1.7)	23 (8.6)	5 (9.8)	
	MMF+TACRO/SI						
	RO, N(%)	73 (11.4)	14 (9.5)	31 (18)	25 (9.4)	3 (5.9)	
	Other, N(%)	39 (6.1)	13 (8.8)	5 (2.9)	18 (6.7)	3 (5.9)	
	missing, N	6	1	4	1	0	
Invivo TCD	No, N(%)	200 (31.3)	74 (50)	67 (39)	46 (17.2)	13 (25.5)	< 0.001
	Yes, N(%)	438 (68.7)	74 (50)	105 (61)	221 (82.8)	38 (74.5)	
	missing, N	6	1	4	1	0	
PTCY	No, N(%)	526 (82.4)	136 (91.9)	101 (58.7)	246 (92.1)	43 (84.3)	< 0.001
	Yes, N(%)	112 (17.6)	12 (8.1)	71 (41.3)	21 (7.9)	8 (15.7)	
	missing, N	6	1	4	1	0	
Combination invivo TCD and PTCy	No invivo TCD; No PTCy, N(%)	100 (15.7)	63 (42.6)	7 (4.1)	25 (9.4)	5 (9.8)	Not done
	ATG, N(%)	405 (63.5)	66 (44.6)	94 (54.7)	212 (79.4)	33 (64.7)	
	Campath, N(%)	21 (3.3)	7 (4.7)	0 (0)	9 (3.4)	5 (9.8)	
	PTCy, N(%)	100 (15.7)	11 (7.4)	60 (34.9)	21 (7.9)	8 (15.7)	
	ATG+PTCy, N(%)	12 (1.9)	1 (0.7)	11 (6.4)	0 (0)	0 (0)	
	missing, N	6	1	4	1	0	

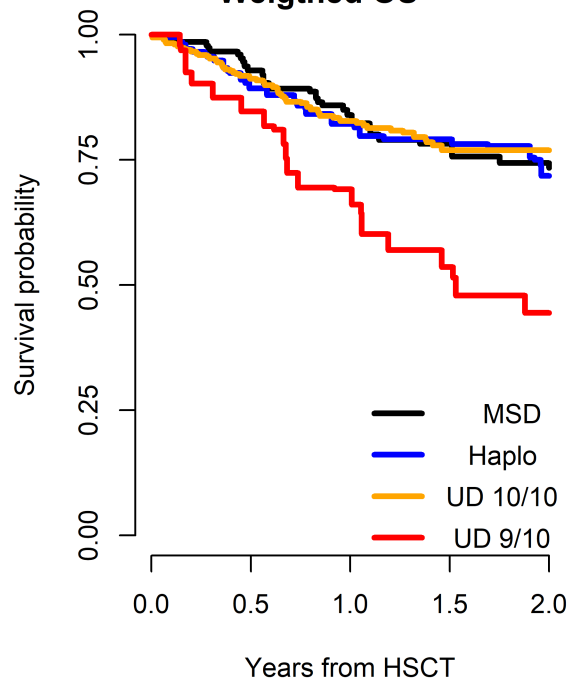
**Abbreviations:** MSD, matched sibling donor; Haplo, haploidentical donor; UD, unrelated donor; HSCT, hematopoietic stem cell transplantation; IQR, interquartile range; AML, acute myeloid leukemia; MRD, measurable residual disease; CMV, cytomegalovirus; Neg, negative; Pos, positive; PB, peripheral blood; BU, busulfan; Flu, fludarabine; Thio, thiotepa; Cy, cyclophosphamide; Arac, cytarabine ; Treo, treosulfan; TBI, total body irradiation; Mel, melphalan; GVHD, graft-versus-host disease; CSA, cyclosporine A; MMF, mycophenolate mofetil; MTX, methotrexate; TACRO, tacrolimus; SIRO, sirolimus; PTCY, post-transplant cyclophosphamide; TCD, T-cell depletion; ATG, antithymocyte globulin.

## Figure legend

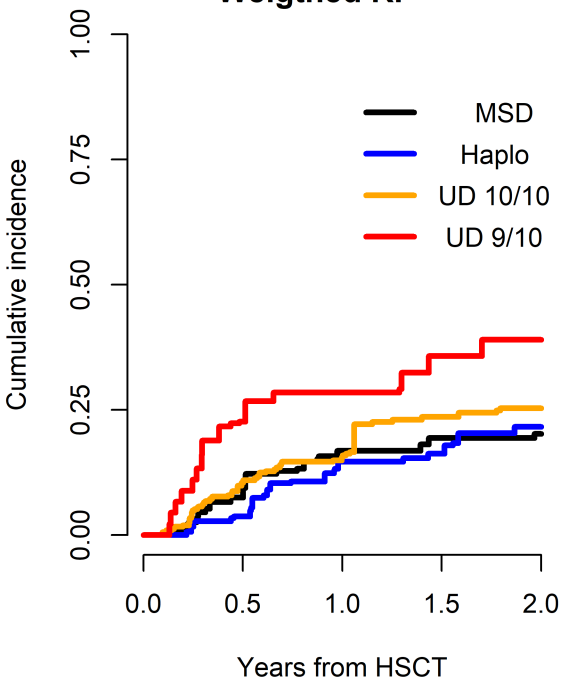
**Figure S1:** Transplant outcomes across different donor types: matched sibling, haploidentical, 9/10 and 10/10 unrelated donors. (A) Leukemia free survival (LFS). (B) Overall survival (OS). (C) Relapse incidence (RI). (D) Non relapse mortality (NRM).

**Weigthed LFS**

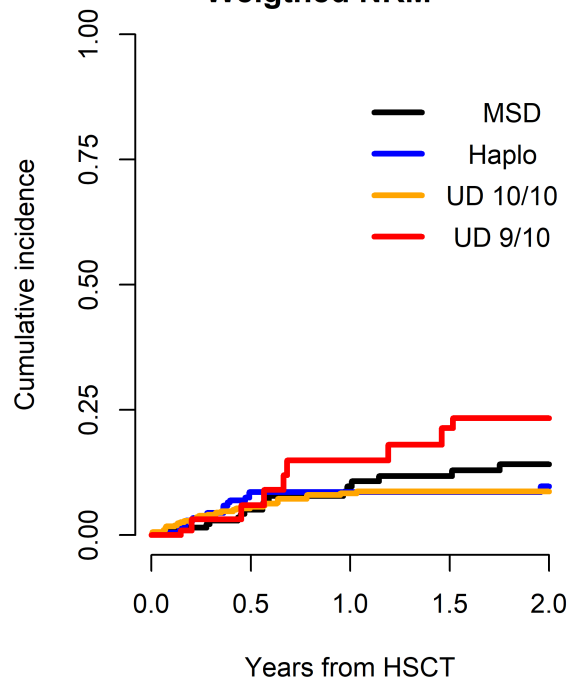
149	105	85	67	50
176	124	109	86	64
268	153	127	87	68
51	27	22	14	7

**Weigthed OS**

149	109	93	72	53
176	127	115	91	67
268	172	141	94	76
51	34	26	17	9

**Weigthed RI**

149	105	85	67	50
176	124	109	86	64
268	153	127	87	68
51	27	22	14	7

**Weigthed NRM**

149	105	85	67	50
176	124	109	86	64
268	153	127	87	68
51	27	22	14	7