

Supplemental Table 1. Univariate Analysis of Engraftment, Relapse and Non-Relapse Mortality											
			Neutrophil Engraftment			Relapse			Non-Relapse Mortality		
		N	28-day (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P	100-day (95%CI)	HR (95%CI)	P
Age	<60	144	0.944(0.890,0.972)	Reference	0.032	0.182(0.124,0.250)	Reference	0.74	0.035(0.013,0.074)	Reference	<0.001
	≥60	66	0.894(0.784,0.950)	0.71(0.55,0.92)		0.216(0.124,0.323)	0.92(0.51,1.63)		0.167(0.088,0.266)	3.15(1.79,5.54)	
Sex	M	122	0.943(0.880,0.973)	Reference	0.96	0.243(0.170,0.324)	Reference	0.11	0.049(0.020,0.098)	Reference	0.19
	F	88	0.909(0.823,0.954)	0.99(0.76,1.29)		0.125(0.066,0.204)	0.62(0.35,1.11)		0.114(0.058,0.190)	1.45(0.83,2.55)	
Female donor to male recipient	No	176	0.926(0.875,0.957)	Reference	0.90	0.185(0.131,0.246)	Reference	0.57	0.085(0.050,0.132)	Reference	0.73
	Yes	34	0.941(0.738,0.988)	1.02(0.75,1.38)		0.235(0.109,0.389)	1.22(0.63,2.36)		0.029(0.002,0.132)	0.86(0.39,1.89)	
Disease Risk Index	Low	31	0.968(0.663,0.997)	Reference	0.12	0.161(0.057,0.312)	Reference	0.077	0.0 (no events)	Reference	0.094
	Intermediate	81	0.901(0.808,0.951)	0.70(0.49,1.01)		0.164(0.092,0.254)	1.61(0.57,4.53)		0.099(0.046,0.176)	3.29(0.99,10.98)	
	High/Very high	78	0.936(0.846,0.974)	0.83(0.58,1.19)		0.286(0.189,0.390)	2.56(0.94,7.00)		0.103(0.048,0.182)	3.24(0.97,10.84)	
Conditioning regimen	MAC-TBI	71	0.930(0.832,0.971)	Reference	0.016	0.185(0.104,0.285)	Reference	0.35	0.056(0.018,0.127)	Reference	0.10
	MAC-Non- TBI	18	0.944(0.485,0.996)	0.83(0.52,1.31)		0.118(0.018,0.320)	0.36(0.09,1.54)		0.0 (no events)	0.61(0.14,2.68)	
	RIC/NMA	121	0.926(0.860,0.961)	0.67(0.49,0.92)		0.209(0.141,0.286)	0.90(0.51,1.59)		0.099(0.054,0.160)	1.75(0.91,3.37)	
Donor type	Haploidentical	172	0.936(0.886,0.964)	Reference	0.30	0.219(0.160,0.285)	Reference	0.028	0.076(0.042,0.121)	Reference	0.21
	Mismatched unrelated	38	0.895(0.727,0.962)	1.20(0.82,1.76)		0.079(0.020,0.193)	0.28(0.09,0.92)		0.079(0.020,0.193)	1.53(0.78,2.97)	
ABO blood group compatibility	ABO Compatible	139	0.921(0.860,0.956)	Reference	0.097	0.206(0.142,0.278)	Reference	0.71	0.094(0.052,0.149)	Reference	0.24
	Minor	32	NE	1.40(0.97,2.01)		0.219(0.095,0.375)	1.05(0.52,2.15)		0.031(0.002,0.140)	0.33(0.10,1.06)	
	Major	24	0.958(0.592,0.997)	1.03(0.74,1.44)		0.128(0.031,0.297)	0.59(0.21,1.63)		0.0 (no events)	0.96(0.41,2.23)	
	Bidirectional	15	0.867(0.483,0.972)	1.02(0.59,1.75)		0.133(0.019,0.357)	0.74(0.23,2.33)		0.133(0.020,0.354)	1.14(0.39,3.38)	
Donor CMV serostatus	D+	143	0.930(0.872,0.962)	Reference	0.40	0.184(0.125,0.252)	Reference	0.80	0.098(0.056,0.153)	Reference	0.22
	D-	67	0.925(0.822,0.970)	1.11(0.84,1.47)		0.213(0.123,0.320)	1.07(0.60,1.90)		0.030(0.006,0.093)	0.66(0.35,1.25)	
Recipient CMV serostatus	R+	177	0.938(0.889,0.965)	Reference	0.63	0.194(0.139,0.255)	Reference	0.65	0.085(0.050,0.132)	Reference	0.18
	R-	33	0.879(0.690,0.956)	1.09(0.71,1.67)		0.195(0.077,0.352)	0.80(0.35,1.85)		0.030(0.002,0.136)	0.50(0.18,1.38)	

Supplemental Table 1. Univariate Analysis of Engraftment, Relapse and Non-Relapse Mortality											
		Neutrophil Engraftment				Relapse			Non-Relapse Mortality		
		N	28-day (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P	100-day (95%CI)	HR (95%CI)	P
Graft source	Peripheral blood stem cells	166	0.928(0.875,0.959)	Reference	0.26	0.165(0.113,0.226)	Reference	0.038	0.090(0.053,0.140)	Reference	0.18
	Bone marrow	44	0.932(0.784,0.980)	0.81(0.62,1.05)		0.301(0.171,0.443)	1.89(1.05,3.40)		0.023(0.002,0.105)	0.59(0.27,1.30)	
Karnofsky Performance Status, %	≥80	176	0.926(0.875,0.957)	Reference	0.84	0.191(0.136,0.253)	Reference	0.89	0.080(0.046,0.126)	Reference	0.074
	<80	34		0.94(0.68,1.32)		0.206(0.089,0.357)	1.06(0.52,2.16)		0.059(0.010,0.174)	1.83(0.96,3.50)	
HCT-Comorbidity Index	0-2	125	0.952(0.893,0.979)	Reference	0.10	0.195(0.130,0.270)	Reference	0.40	0.056(0.025,0.106)	Reference	0.18
	≥3	85	0.894(0.803,0.945)	0.80(0.62,1.03)		0.191(0.115,0.282)	1.24(0.72,2.14)		0.106(0.052,0.182)	1.46(0.83,2.56)	
Tacrolimus initial dosing method	Flat	131	0.931(0.870,0.964)	Reference	0.71	0.170(0.111,0.239)	Reference	0.54	0.084(0.044,0.139)	Reference	0.50
	Weight-based	79	0.924(0.833,0.966)	1.05(0.81,1.37)		0.234(0.146,0.334)	1.18(0.68,2.06)		0.063(0.023,0.132)	1.22(0.69,2.17)	
Tacrolimus at initial steady state, ng/mL	<10	176	0.938(0.889,0.965)	Reference	0.24	0.173(0.120,0.233)	Reference	0.031	0.080(0.046,0.126)	Reference	0.79
	≥10	34	0.882(0.702,0.957)	0.79(0.55,1.15)		0.305(0.156,0.468)	1.98(1.07,3.65)		0.059(0.010,0.174)	0.90(0.40,2.01)	

Supplemental Table 2. Univariate Analysis of Survival Outcomes											
			Overall Survival			GvHD-Free, Relapse-Free Survival			Disease-Free Survival		
		N	1 Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P
Age	<60	144	0.803(0.727,0.859)	Reference	<0.001	0.556(0.470,0.634)	Reference	0.039	0.705(0.622,0.773)	Reference	<0.001
	≥60	66	0.589(0.460,0.696)	2.22(1.44,3.43)		0.374(0.258,0.489)	1.47(1.02,2.13)		0.434(0.313,0.550)	1.98(1.33,2.96)	
Sex	M	122	0.749(0.661,0.818)	Reference	0.79	0.462(0.370,0.549)	Reference	0.98	0.582(0.488,0.665)	Reference	0.81
	F	88	0.715(0.609,0.798)	1.06(0.69,1.63)		0.545(0.436,0.642)	1.00(0.70,1.44)		0.670(0.561,0.758)	0.95(0.64,1.42)	
Female donor to male recipient	No	176	0.724(0.651,0.784)	Reference	0.56	0.511(0.434,0.582)	Reference	0.88	0.626(0.549,0.693)	Reference	0.94
	Yes	34	0.794(0.616,0.896)	0.84(0.45,1.54)		0.441(0.273,0.597)	1.04(0.65,1.66)		0.588(0.406,0.732)	1.02(0.61,1.72)	
Disease Risk Index	Low	31	0.839(0.655,0.929)	Reference	0.022	0.677(0.484,0.812)	Reference	0.002	0.742(0.550,0.862)	Reference	0.003
	Intermediate	81	0.761(0.651,0.841)	2.50(1.11,5.61)		0.482(0.367,0.587)	2.72(1.38,5.35)		0.635(0.519,0.731)	2.50(1.17,5.32)	
	High/Very high	78	0.613(0.495,0.711)	2.96(1.32,6.61)		0.367(0.261,0.473)	3.15(1.61,6.18)		0.470(0.356,0.576)	3.34(1.58,7.04)	
Conditioning regimen	MAC-TBI	71	0.757(0.638,0.841)	Reference	0.080	0.496(0.373,0.607)	Reference	0.050	0.686(0.563,0.781)	Reference	0.048
	MAC-Non- TBI	18	0.882(0.606,0.969)	0.41(0.12,1.35)		0.708(0.435,0.867)	0.35(0.14,0.89)		0.765(0.488,0.904)	0.42(0.15,1.18)	
	RIC/NMA	121	0.701(0.610,0.774)	1.31(0.81,2.10)		0.468(0.377,0.554)	1.03(0.70,1.51)		0.559(0.465,0.642)	1.29(0.84,1.98)	
Donor type	Haploidentical	172	0.741(0.668,0.800)	Reference	0.67	0.491(0.413,0.564)	Reference	0.76	0.605(0.527,0.674)	Reference	0.46
	Mismatched unrelated	38	0.711(0.539,0.828)	1.13(0.63,2.02)		0.526(0.358,0.670)	0.93(0.56,1.53)		0.684(0.511,0.807)	0.81(0.46,1.43)	
ABO blood group compatibility	ABO Compatible	139	0.707(0.623,0.776)	Reference	0.26	0.463(0.377,0.545)	Reference	0.41	0.590(0.502,0.667)	Reference	0.37
	Minor	32	0.875(0.700,0.951)	0.54(0.27,1.08)		0.625(0.435,0.767)	0.63(0.36,1.09)		0.719(0.529,0.843)	0.61(0.33,1.12)	
	Major	24	0.708(0.484,0.849)	0.76(0.36,1.58)		0.497(0.287,0.676)	0.90(0.51,1.59)		0.664(0.439,0.816)	0.73(0.37,1.41)	
	Bidirectional	15	0.733(0.436,0.891)	1.20(0.55,2.63)		0.533(0.263,0.744)	0.85(0.41,1.75)		0.600(0.318,0.797)	0.94(0.43,2.05)	
Donor CMV serostatus	D+	143	0.718(0.637,0.785)	Reference	0.18	0.498(0.413,0.577)	Reference	0.96	0.605(0.520,0.680)	Reference	0.34
	D-	67	0.771(0.649,0.855)	0.72(0.44,1.17)		0.499(0.372,0.612)	0.99(0.67,1.45)		0.649(0.520,0.751)	0.81(0.53,1.25)	
Recipient CMV serostatus	R+	177	0.716(0.643,0.777)	Reference	0.35	0.482(0.406,0.553)	Reference	0.21	0.602(0.526,0.670)	Reference	0.14
	R-	33	0.839(0.655,0.930)	0.72(0.36,1.44)		0.587(0.396,0.737)	0.70(0.40,1.23)		0.710(0.516,0.838)	0.61(0.32,1.18)	

Supplemental Table 2. Univariate Analysis of Survival Outcomes											
		Overall Survival				GvHD-Free, Relapse-Free Survival			Disease-Free Survival		
		N	1 Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P
Graft source	Peripheral blood stem cells	166	0.715(0.639,0.777)	Reference	0.59	0.482(0.403,0.556)	Reference	0.25	0.629(0.550,0.698)	Reference	0.56
	Bone marrow	44	0.815(0.664,0.903)	0.87(0.51,1.47)		0.561(0.401,0.694)	0.77(0.49,1.21)		0.583(0.422,0.714)	1.15(0.72,1.83)	
Karnofsky Performance Status, %	≥80	176	0.758(0.687,0.815)	Reference	0.069	0.515(0.438,0.587)	Reference	0.20	0.643(0.566,0.709)	Reference	0.083
	<80	34	0.618(0.434,0.757)	1.61(0.95,2.72)		0.412(0.248,0.569)	1.34(0.85,2.11)		0.500(0.324,0.653)	1.53(0.94,2.47)	
HCT-Comorbidity Index	0-2	125	0.790(0.707,0.852)	Reference	0.017	0.520(0.428,0.604)	Reference	0.073	0.643(0.552,0.721)	Reference	0.053
	≥3	85	0.655(0.542,0.746)	1.67(1.09,2.57)		0.466(0.356,0.568)	1.38(0.97,1.98)		0.584(0.471,0.681)	1.47(0.99,2.18)	
Tacrolimus initial dosing method	Flat	131	0.761(0.678,0.826)	Reference	0.69	0.506(0.417,0.589)	Reference	0.71	0.669(0.581,0.743)	Reference	0.22
	Weight-based	79	0.692(0.577,0.782)	1.09(0.70,1.70)		0.485(0.370,0.591)	0.93(0.64,1.35)		0.536(0.419,0.640)	1.28(0.86,1.91)	
Tacrolimus at initial steady state, ng/mL	<10	176	0.736(0.664,0.795)	Reference	0.71	0.496(0.419,0.567)	Reference	0.91	0.638(0.562,0.705)	Reference	0.097
	≥10	34	0.733(0.549,0.851)	1.11(0.63,1.95)		0.512(0.330,0.668)	1.03(0.64,1.66)		0.519(0.338,0.672)	1.51(0.92,2.47)	

Supplemental Table 3. Univariate analysis of GvHD														
		N	Grade II-IV aGvHD			Grade III-IV aGvHD			Any cGvHD			Extensive cGvHD		
			100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	1-Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P
Age	<60	14	0.472(0.388,0.55	Reference	0.12	0.153(0.100,0.21	Reference	0.79	0.418(0.336,0.49	Reference	0.12	0.311(0.236,0.38	Reference	0.22
		4	1)			7)			9)			9)		
	≥60	66	0.348(0.236,0.46	0.69(0.43,1.1		0.136(0.067,0.23	0.90(0.41,1.9		0.322(0.211,0.43	0.69(0.43,1.1		0.245(0.148,0.35	0.71(0.40,1.2	
			4)	1)		1)	6)		7)	2)		5)	5)	
Sex	M	12	0.475(0.384,0.56	Reference	0.21	0.164(0.104,0.23	Reference	0.46	0.412(0.322,0.50	Reference	0.69	0.276(0.199,0.35	Reference	0.51
		2	1)			5)			0)			9)		
	F	88	0.375(0.274,0.47	0.76(0.50,1.1		0.125(0.066,0.20	0.76(0.36,1.5		0.356(0.257,0.45	0.92(0.60,1.4		0.310(0.216,0.40	1.19(0.72,1.9	
			5)	7)		4)	8)		7)	3)		9)	5)	
Female donor to male recipient	No	17	0.443(0.369,0.51	Reference	0.48	0.148(0.100,0.20	Reference	0.95	0.354(0.283,0.42	Reference	0.04	0.260(0.197,0.32	Reference	0.05
		6	5)			4)			5)		9	8)		2
	Yes	34	0.382(0.220,0.54	0.81(0.46,1.4		0.147(0.053,0.28	0.97(0.38,2.4		0.559(0.372,0.71	1.67(1.01,2.7		0.441(0.268,0.60	1.79(1.01,3.1	
			3)	5)		7)	7)		0)	5)		1)	7)	
Disease Risk Index	Low	31	0.419(0.243,0.58	Reference	0.44	0.097(0.024,0.23	Reference	0.48	0.387(0.216,0.55	Reference	0.94	0.226(0.097,0.38	Reference	0.43
			6)			2)			5)			6)		
	Intermediate	81	0.407(0.299,0.51	0.93(0.49,1.7		0.136(0.072,0.22	1.45(0.41,5.1		0.385(0.276,0.49	0.89(0.48,1.6		0.332(0.230,0.43	1.66(0.72,3.8	
			2)	8)		0)	0)		2)	5)		8)	3)	
	High/Very high	78	0.500(0.384,0.60	1.25(0.67,2.3		0.179(0.103,0.27	1.98(0.58,6.7		0.388(0.279,0.49	0.90(0.48,1.6		0.271(0.177,0.37	1.35(0.58,3.1	
			5)	6)		2)	6)		6)	7)		5)	4)	
Conditioning regimen	MAC-TBI	71	0.493(0.371,0.60	Reference	0.41	0.113(0.052,0.19	Reference	0.23	0.484(0.359,0.59	Reference	0.22	0.365(0.252,0.48	Reference	0.24
			4)			9)			7)			0)		
	MAC-Non-TBI	18	0.444(0.208,0.65	0.90(0.42,1.9		0.056(0.003,0.23	0.48(0.06,3.8		0.333(0.131,0.55	0.63(0.26,1.5		0.278(0.097,0.49	0.70(0.27,1.7	
			8)	7)		1)	8)		2)	2)		5)	9)	
	RIC/NMA	12	0.397(0.309,0.48	0.75(0.49,1.1		0.182(0.119,0.25	1.67(0.75,3.7		0.341(0.257,0.42	0.70(0.45,1.0		0.249(0.176,0.33	0.65(0.39,1.0	
			1	5)		6)	4)		7)	8)		0)	8)	
Donor type	Haploidentical	17	0.401(0.327,0.47	Reference	0.03	0.134(0.088,0.18	Reference	0.21	0.375(0.302,0.44	Reference	0.40	0.285(0.219,0.35	Reference	0.69
		2	4)		6	9)			8)			5)		

Supplemental Table 3. Univariate analysis of GvHD														
		Grade II-IV aGvHD				Grade III-IV aGvHD			Any cGvHD			Extensive cGvHD		
		N	100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	1-Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P
	Mismatched unrelated	38	0.579(0.403,0.720)	1.68(1.05,2.70)		0.211(0.097,0.352)	1.67(0.75,3.74)		0.447(0.283,0.599)	1.24(0.72,2.16)		0.316(0.175,0.467)	1.14(0.59,2.17)	
ABO blood group compatibility	ABO Compatible	139	0.403(0.321,0.483)	Reference	0.66	0.151(0.097,0.216)	Reference	0.75	0.374(0.293,0.456)	Reference	0.88	0.301(0.225,0.379)	Reference	0.98
	Minor	32	0.469(0.287,0.631)	1.24(0.70,2.19)		0.094(0.023,0.225)	0.59(0.18,1.91)		0.438(0.260,0.602)	1.23(0.70,2.18)		0.250(0.116,0.410)	0.89(0.44,1.82)	
	Major	24	0.500(0.284,0.682)	1.34(0.72,2.48)		0.167(0.050,0.341)	1.15(0.39,3.44)		0.391(0.191,0.587)	1.04(0.56,1.96)		0.304(0.130,0.500)	0.98(0.45,2.14)	
	Bidirectional	15	0.533(0.248,0.753)	1.38(0.69,2.76)		0.200(0.045,0.433)	1.32(0.41,4.27)		0.400(0.153,0.640)	1.26(0.57,2.78)		0.267(0.076,0.507)	1.14(0.44,2.93)	
Donor CMV serostatus	D+	143	0.378(0.298,0.457)	Reference	0.010	0.133(0.083,0.194)	Reference	0.38	0.340(0.262,0.418)	Reference	0.036	0.254(0.186,0.329)	Reference	0.064
	D-	67	0.552(0.424,0.663)	1.73(1.14,2.62)		0.179(0.098,0.280)	1.38(0.67,2.83)		0.492(0.364,0.608)	1.59(1.03,2.47)		0.367(0.251,0.484)	1.61(0.97,2.67)	
Recipient CMV serostatus	R+	177	0.435(0.361,0.507)	Reference	0.87	0.158(0.109,0.216)	Reference	0.36	0.372(0.300,0.443)	Reference	0.43	0.280(0.215,0.348)	Reference	0.58
	R-	33	0.424(0.252,0.586)	1.05(0.58,1.90)		0.091(0.023,0.219)	0.58(0.17,1.98)		0.477(0.290,0.643)	1.24(0.71,2.14)		0.347(0.185,0.515)	1.19(0.63,2.25)	
Graft source	Peripheral blood stem cells	166	0.470(0.392,0.544)	Reference	0.027	0.169(0.116,0.230)	Reference	0.09	0.430(0.353,0.505)	Reference	0.032	0.319(0.248,0.391)	Reference	0.082
	Bone marrow	44	0.295(0.168,0.434)	0.53(0.30,0.93)		0.068(0.017,0.169)	0.38(0.12,1.22)		0.228(0.117,0.362)	0.51(0.26,1.00)		0.183(0.084,0.311)	0.53(0.24,1.13)	
Karnofsky Performance Status, %	≥80	176	0.432(0.358,0.504)	Reference	0.78	0.136(0.090,0.192)	Reference	0.30	0.413(0.338,0.486)	Reference	0.42	0.313(0.245,0.383)	Reference	0.36
	<80	34	0.441(0.269,0.600)	1.08(0.61,1.91)		0.206(0.089,0.356)	1.56(0.68,3.58)		0.265(0.129,0.422)	0.79(0.43,1.46)		0.176(0.070,0.322)	0.72(0.34,1.52)	

Supplemental Table 3. Univariate analysis of GvHD														
		N	Grade II-IV aGvHD			Grade III-IV aGvHD			Any cGvHD			Extensive cGvHD		
			100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	1-Yr (95%CI)	HR (95%CI)	P	1 Yr (95%CI)	HR (95%CI)	P
HCT-Comorbidity Index	0-2	12	0.440(0.351,0.52	Reference	0.80	0.128(0.076,0.19	Reference	0.32	0.425(0.336,0.51	Reference	0.31	0.301(0.222,0.38	Reference	0.85
		5	5)			3)			1)			4)		
	≥3	85	0.424(0.317,0.52	0.95(0.63,1.4		0.176(0.104,0.26	1.42(0.71,2.8		0.334(0.234,0.43	0.79(0.51,1.2		0.273(0.182,0.37	0.95(0.58,1.5	
			6)	4)		5)	7)		6)	2)		2)	7)	
Tacrolimus initial dosing method	Flat	13	0.458(0.371,0.54	Reference	0.39	0.160(0.103,0.22	Reference	0.48	0.432(0.345,0.51	Reference	0.06	0.316(0.237,0.39	Reference	0.30
		1	1)			8)			6)		3	7)		
	Weight-based	79	0.392(0.284,0.49	0.83(0.54,1.2		0.127(0.065,0.21	0.76(0.36,1.6		0.313(0.212,0.41	0.64(0.40,1.0		0.247(0.156,0.34	0.76(0.45,1.2	
			9)	8)		0)	1)		9)	3)		8)	8)	
Tacrolimus at initial steady state, ng/mL	<10	17	0.455(0.380,0.52	Reference	0.16	0.159(0.109,0.21	Reference	0.29	0.402(0.329,0.47	Reference	0.21	0.287(0.221,0.35	Reference	0.93
		6	6)			7)			4)		5)			
	≥10	34	0.324(0.174,0.48	0.65(0.35,1.2		0.088(0.022,0.21	0.54(0.16,1.7		0.311(0.158,0.47	0.66(0.34,1.2		0.311(0.158,0.47	1.02(0.52,2.0	
			3)	1)		3)	7)		7)	8)		7)	1)	

Supplemental Table 4. Univariate Analysis of Infection											
			Blood Stream Infection			Fungal Infection			Viral Infection*		
		N	100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P
Age	<60	144	0.278(0.207,0.353)	Reference	0.18	0.042(0.017,0.084)	Reference	0.005	0.833(0.761,0.886)	Reference	0.029
	≥60	66	0.379(0.262,0.495)	1.40(0.86,2.29)		0.154(0.078,0.252)	3.90(1.43,10.65)		0.712(0.584,0.807)	0.68(0.49,0.95)	
Sex	M	122	0.311(0.231,0.395)	Reference	0.93	0.041(0.015,0.088)	Reference	0.024	0.820(0.738,0.878)	Reference	0.23
	F	88	0.307(0.214,0.405)	0.98(0.60,1.59)		0.125(0.066,0.204)	3.19(1.12,9.08)		0.761(0.656,0.838)	0.83(0.61,1.13)	
Female donor to male recipient	No	176	0.301(0.235,0.370)	Reference	0.64	0.074(0.042,0.119)	Reference	0.79	0.795(0.727,0.848)	Reference	0.50
	Yes	34	0.353(0.197,0.513)	1.16(0.63,2.11)		0.088(0.022,0.213)	1.19(0.34,4.12)		0.794(0.606,0.899)	0.87(0.60,1.26)	
Disease Risk Index	Low	31	0.226(0.098,0.386)	Reference	0.44	0.032(0.002,0.144)	Reference	0.60	0.774(0.573,0.889)	Reference	0.079
	Intermediate	81	0.309(0.211,0.411)	1.43(0.62,3.32)		0.074(0.030,0.145)	2.35(0.28,19.83)		0.716(0.602,0.802)	0.89(0.56,1.41)	
	High/Very high	78	0.359(0.254,0.465)	1.69(0.74,3.86)		0.091(0.040,0.168)	2.82(0.34,23.09)		0.846(0.742,0.911)	1.31(0.84,2.07)	
Conditioning regimen	MAC-TBI	71	0.282(0.182,0.390)	Reference	0.81	0.056(0.018,0.127)	Reference	0.63	0.845(0.734,0.912)	Reference	0.007
	MAC-Non- TBI	18	0.333(0.131,0.552)	1.27(0.50,3.22)		0.056(0.003,0.231)	0.97(0.11,8.39)		0.944(0.485,0.995)	2.27(1.20,4.29)	
	RIC/NMA	121	0.322(0.241,0.406)	1.16(0.68,1.98)		0.092(0.048,0.152)	1.67(0.53,5.19)		0.744(0.655,0.813)	0.74(0.54,1.01)	
Donor type	Haploidentical	172	0.308(0.241,0.378)	Reference	0.96	0.088(0.051,0.136)	Reference	0.19	0.820(0.753,0.870)	Reference	0.013
	Mismatched unrelated	38	0.316(0.175,0.466)	1.02(0.55,1.88)		0.026(0.002,0.120)	0.29(0.04,2.12)		0.684(0.506,0.810)	0.58(0.40,0.85)	
ABO blood group compatibility	ABO Compatible	139	0.302(0.228,0.380)	Reference	0.64	0.072(0.037,0.124)	Reference	0.75	0.806(0.729,0.863)	Reference	0.46
	Minor	32	0.250(0.116,0.410)	0.80(0.38,1.68)		0.094(0.023,0.225)	1.30(0.36,4.68)		0.719(0.521,0.846)	0.81(0.52,1.25)	
	Major	24	0.375(0.186,0.565)	1.36(0.65,2.83)		0.042(0.003,0.180)	0.57(0.07,4.53)		0.792(0.552,0.912)	1.15(0.68,1.94)	
	Bidirectional	15	0.400(0.156,0.636)	1.35(0.60,3.02)		0.133(0.020,0.355)	1.87(0.42,8.32)		0.867(0.474,0.973)	1.33(0.74,2.41)	
Donor CMV serostatus	D+	143	0.322(0.247,0.399)	Reference	0.55	0.106(0.062,0.163)	Reference	0.021	0.839(0.767,0.891)	Reference	0.003
	D-	67	0.284(0.181,0.395)	0.85(0.50,1.44)		0.015(0.001,0.072)	0.13(0.02,1.00)		0.701(0.574,0.797)	0.59(0.43,0.82)	

Supplemental Table 4. Univariate Analysis of Infection											
		Blood Stream Infection				Fungal Infection			Viral Infection*		
		N	100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P
Recipient CMV serostatus	R+	177	0.305(0.239,0.374)	Reference	0.68	0.085(0.050,0.132)	Reference	0.27	0.853(0.791,0.898)	Reference	<0.001
	R-	33	0.333(0.179,0.495)	1.15(0.60,2.20)		0.030(0.002,0.136)	0.34(0.05,2.54)		0.485(0.304,0.644)	0.42(0.23,0.77)	
Graft source	Peripheral blood stem cells	166	0.301(0.233,0.372)	Reference	0.55	0.079(0.044,0.126)	Reference	0.82	0.783(0.712,0.839)	Reference	0.13
	Bone marrow	44	0.341(0.205,0.482)	1.19(0.67,2.13)		0.068(0.017,0.169)	0.87(0.25,3.03)		0.841(0.687,0.923)	1.30(0.89,1.90)	
Karnofsky Performance Status, %	≥80	176	0.273(0.209,0.340)	Reference	0.004	0.051(0.025,0.091)	Reference	0.002	0.767(0.697,0.823)	Reference	0.009
	<80	34	0.500(0.320,0.656)	2.27(1.30,3.98)		0.206(0.089,0.356)	4.24(1.60,11.25)		0.941(0.744,0.988)	1.60(1.13,2.26)	
HCT-Comorbidity Index	0-2	125	0.248(0.176,0.327)	Reference	0.014	0.073(0.036,0.127)	Reference	0.82	0.792(0.709,0.854)	Reference	0.94
	≥3	85	0.400(0.295,0.502)	1.83(1.13,2.97)		0.082(0.036,0.153)	1.12(0.42,3.00)		0.800(0.696,0.872)	1.01(0.75,1.37)	
Tacrolimus initial dosing method	Flat	131	0.298(0.222,0.377)	Reference	0.72	0.069(0.034,0.122)	Reference	0.62	0.779(0.696,0.841)	Reference	0.33
	Weight-based	79	0.329(0.228,0.434)	1.10(0.67,1.78)		0.089(0.039,0.164)	1.28(0.48,3.42)		0.823(0.717,0.892)	1.16(0.85,1.58)	
Tacrolimus at initial steady state, ng/mL	<10	176	0.307(0.240,0.376)	Reference	0.91	0.062(0.033,0.105)	Reference	0.077	0.773(0.703,0.828)	Reference	0.003
	≥10	34	0.324(0.174,0.483)	1.04(0.55,1.95)		0.152(0.054,0.295)	2.54(0.89,7.25)		0.912(0.727,0.974)	1.67(1.13,2.45)	

*Earliest viral infection of CMV, ADV, HHV6, BKV, or EBV

Supplemental Table 5. Univariate and Multivariable Analyses of CMV and BKV Infection													
		CMV						BKV					
		Univariate				Multivariable*		Univariate				Multivariable†	
		N	100 days (95%CI)	HR (95%CI)	P	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	HR (95%CI)	P	
Age	<60	144	0.611(0.526,0.686)	Reference	0.82	Reference	0.20	0.271(0.201,0.345)	Reference	0.53	Reference	0.68	
	≥60	66	0.652(0.521,0.754)	0.96(0.68,1.35)		0.79(0.55,1.13)		0.227(0.135,0.335)	0.83(0.46,1.50)		0.88(0.48,1.62)		
Sex	M	122	0.664(0.572,0.741)	Reference	0.19	Reference	0.014	0.262(0.188,0.343)	Reference	0.81	Reference	0.74	
	F	88	0.568(0.457,0.665)	0.79(0.56,1.12)		0.63(0.44,0.91)		0.250(0.165,0.344)	0.93(0.55,1.60)		0.91(0.53,1.57)		
Female donor to male recipient	No	176	0.631(0.554,0.698)	Reference	0.31	Reference	0.030	0.244(0.183,0.310)	Reference	0.39	Reference	0.27	
	Yes	34	0.588(0.401,0.735)	0.79(0.51,1.21)		0.56(0.33,0.94)		0.324(0.174,0.483)	1.33(0.70,2.53)		1.45(0.75,2.78)		
Disease Risk Index	Low	31	0.677(0.476,0.815)	Reference	0.27	Reference	0.47	0.323(0.167,0.490)	Reference	0.44	Reference	0.43	
	Intermediate	81	0.580(0.464,0.680)	0.79(0.50,1.28)		0.82(0.50,1.35)		0.210(0.129,0.305)	0.60(0.27,1.32)		0.59(0.27,1.32)		
	High/Very high	78	0.654(0.536,0.749)	1.09(0.67,1.77)		1.04(0.62,1.74)		0.256(0.165,0.357)	0.73(0.34,1.55)		0.78(0.36,1.66)		
Conditioning regimen	MAC-TBI	71	0.620(0.495,0.722)	Reference	0.69	Reference	0.20	0.239(0.147,0.344)	Reference	0.31	Reference	0.66	
	MAC-Non-TBI	18	0.556(0.293,0.754)	0.77(0.38,1.54)		0.65(0.32,1.31)		0.389(0.168,0.606)	1.95(0.78,4.84)		1.52(0.49,4.75)		
	RIC	121	0.636(0.543,0.716)	0.89(0.61,1.30)		0.72(0.49,1.05)		0.248(0.175,0.328)	1.05(0.58,1.88)		0.97(0.52,1.80)		
Donor type	Haploidentical	172	0.651(0.574,0.718)	Reference	0.054	Reference	0.28	0.273(0.209,0.341)	Reference	0.20	Reference	0.27	
	Mismatched unrelated	38	0.500(0.330,0.648)	0.63(0.40,1.00)		0.77(0.48,1.24)		0.184(0.080,0.322)	0.60(0.28,1.29)		0.65(0.30,1.40)		
ABO blood group compatibility	ABO Compatible	139	0.633(0.547,0.708)	Reference	0.41	Reference	0.72	0.259(0.189,0.334)	Reference	1.00	Reference	1.00	
	Minor	32	0.500(0.315,0.660)	0.69(0.41,1.17)		0.74(0.44,1.24)		0.250(0.116,0.410)	0.93(0.44,1.96)		0.93(0.44,1.98)		
	Major	24	0.667(0.432,0.822)	1.10(0.65,1.86)		1.03(0.57,1.86)		0.250(0.099,0.436)	0.98(0.41,2.34)		1.07(0.43,2.69)		
	Bidirectional	15	0.733(0.402,0.900)	1.24(0.68,2.26)		0.97(0.53,1.77)		0.267(0.077,0.506)	0.98(0.37,2.61)		1.02(0.37,2.78)		

Supplemental Table 5. Univariate and Multivariable Analyses of CMV and BKV Infection												
			CMV					BKV				
			Univariate			Multivariable*		Univariate			Multivariable†	
		N	100 days (95%CI)	HR (95%CI)	P	HR (95%CI)	P	100 days (95%CI)	HR (95%CI)	P	HR (95%CI)	P
Donor CMV serostatus	D+	143	0.699(0.616,0.768)	Reference	<0.001	Reference	0.055	0.266(0.196,0.340)	Reference	0.52	Reference	0.61
	D-	67	0.463(0.339,0.577)	0.51(0.34,0.75)		2.86(0.98,8.37)		0.239(0.144,0.347)	0.83(0.47,1.46)		0.86(0.49,1.52)	
Recipient CMV serostatus	R+	177	0.723(0.650,0.783)	Reference	<0.001	Reference	<0.001	0.249(0.187,0.314)	Reference	0.43	Reference	0.65
	R-	33	0.091(0.023,0.219)	0.07(0.02,0.22)		0.08(0.03,0.24)		0.303(0.156,0.464)	1.32(0.66,2.67)		1.19(0.56,2.52)	
Graft source	Peripheral blood stem cells	166	0.627(0.548,0.695)	Reference	0.51	Reference	0.13	0.235(0.173,0.302)	Reference	0.14	Reference	0.13
	Bone marrow	44	0.614(0.451,0.741)	0.87(0.59,1.29)		0.72(0.48,1.10)		0.341(0.205,0.482)	1.57(0.87,2.85)		1.57(0.87,2.85)	
Karnofsky Performance Status, %	≥80	176	0.591(0.514,0.660)	Reference	0.015	Reference	0.030	0.261(0.199,0.328)	Reference	0.78	Reference	0.82
	<80	34	0.794(0.606,0.899)	1.67(1.11,2.51)		1.53(1.04,2.25)		0.235(0.109,0.389)	0.90(0.42,1.91)		0.92(0.43,1.95)	
HCT-Comorbidity Index	0-2	125	0.648(0.557,0.725)	Reference	0.75	Reference	0.77	0.232(0.162,0.309)	Reference	0.35	Reference	0.29
	≥3	85	0.588(0.475,0.685)	0.95(0.66,1.35)		0.95(0.66,1.37)		0.294(0.201,0.393)	1.29(0.76,2.19)		1.33(0.78,2.25)	
Letemovir	No	193	0.658(0.586,0.721)	Reference	0.002	Reference	0.019	0.259(0.199,0.323)	Reference	0.84	Reference	0.95
	Yes	17	0.235(0.069,0.457)	0.25(0.09,0.68)		0.29(0.10,0.82)		0.235(0.069,0.457)	0.90(0.33,2.49)		0.97(0.35,2.70)	
Tacrolimus initial dosing method	Flat	131	0.611(0.521,0.689)	Reference	0.77	Reference	0.23	0.214(0.148,0.288)	Reference	0.063	Reference	0.087
	Weight-based	79	0.646(0.528,0.741)	1.05(0.75,1.48)		1.24(0.87,1.78)		0.329(0.228,0.434)	1.65(0.97,2.81)		1.60(0.94,2.72)	
Tacrolimus at initial steady state, ng/mL	<10	176	0.614(0.537,0.681)	Reference	0.40	Reference	0.72	0.239(0.178,0.304)	Reference	0.13	Reference	0.36
	≥10	34	0.676(0.486,0.809)	1.21(0.77,1.89)		1.09(0.68,1.75)		0.353(0.197,0.513)	1.66(0.86,3.19)		1.44(0.66,3.14)	

*Adjusted for Sex, Female donor to male recipient, Karnofsky Performance Status, Donor/Recipient CMV serostatus, and letemovir prophylaxis.

†Adjusted for Graft source.