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Supplementary Appendix.

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Supplementary table 1. The cumulative incidences of engraftment at day 50 in patients

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with WBC < 100 cells/ μ l at each day according to their sources.

PBSCs				BM				CB			
day	n	Incidence	95%CI	day	n	Incidence	95%CI	day	n	Incidence	95%CI
10	137	96%	(90-99)	10	508	95%	(93-97)	10	81	83%	(72-90)
11	85	94%	(84-98)	11	436	95%	(92-97)	11	64	80%	(67-88)
12	52	90%	(78-96)	12	399	94%	(92-96)	12	56	77%	(63-86)
13	41	88%	(72-95)	13	369	94%	(91-96)	13	49	78%	(63-87)
14	24	79%	(55-91)	14	305	93%	(89-95)	14	43	77%	(60-87)
15	18	78%	(48-92)	15	229	91%	(86-94)	15	39	80%	(62-90)
16	13	69%	(34-88)	16	182	90%	(84-93)	16	34	82%	(63-92)
17	12	67%	(30-87)	17	145	87%	(80-91)	17	30	80%	(59-91)
18	7	57%	(13-86)	18	121	85%	(77-90)	18	25	76%	(52-89)
19	5	40%	(3.1-79)	19	91	80%	(70-87)	19	17	71%	(40-88)
20	5	40%	(3.1-79)	20	60	72%	(58-81)	20	12	58%	(24-82)
21	4	25%	(0.2-73)	21	43	63%	(46-75)	21	8	50%	(11-81)
22	4	25%	(0.2-73)	22	31	52%	(33-68)	22	8	50%	(11-81)
23	4	25%	(0.2-73)	23	25	52%	(31-70)	23	7	43%	(5.9-78)
24	2	0%	0	24	21	48%	(25-67)	24	6	33%	(1.8-74)
				25	17	41%	(18-64)	25	6	33%	(1.8-74)
				26	15	47%	(20-70)	26	6	33%	(1.8-74)
				27	13	46%	(18-71)	27	6	33%	(1.8-74)
				28	13	46%	(18-71)	28	6	33%	(1.8-74)
				29	12	42%	(14-68)	29	5	40%	(1.7-81)
				30	9	22%	(2.3-55)	30	4	25%	(0.2-73)
				31	9	22%	(2.3-55)	31	3	0%	0
				32	9	25%	(2.5-59)				
				33	7	29%	(2.7-65)				
				34	5	20%	(0.4-63)				
				35	3	0%	0				

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WBC: white blood cell, PBSCs: peripheral blood stem cells, BM: bone marrow, CB: cord

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blood.

1 **Supplementary table 2. Univariate analyses for cumulative incidence of engraftment at day50 in all patients and patients with WBC < 100 cells/μl at day**
 2 **14, day 21 and day28.**

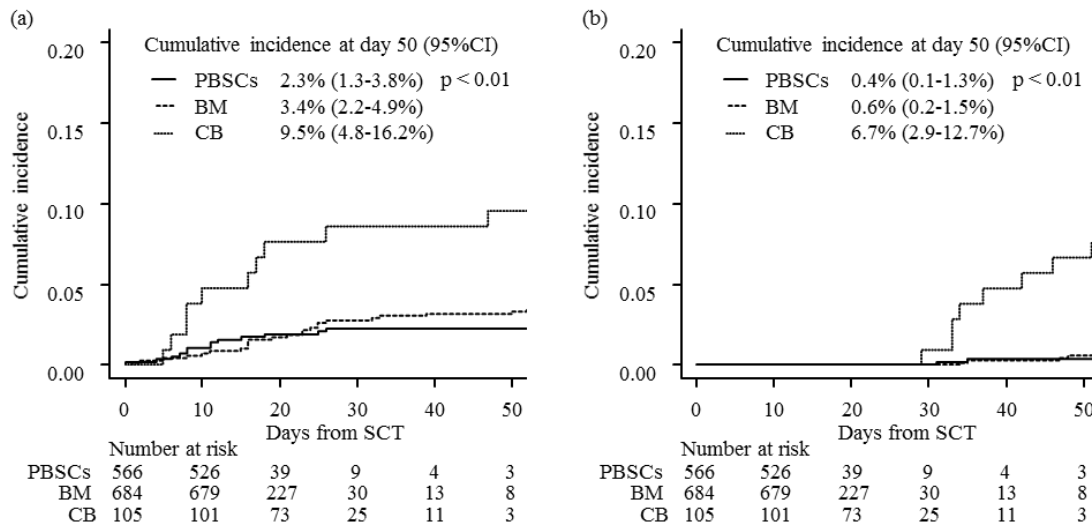
		all			day14			day21			day28		
		n = 1355			n = 372			n = 55			n = 21		
		Cumulative incidence	(95%CI)	p	Cumulative incidence	(95%CI)	p	Cumulative incidence	(95%CI)	p	Cumulative incidence	(95%CI)	p
Sex	female	97%	(95-98)	0.01	91%	(84-95)	0.34	57%	(33-76)	0.70	11%	(0.4-42)	0.05
	male	93%	(92-95)		90%	(85-93)		59%	(40-74)		58%	(23-82)	
Sex combination	others	96%	(94-97)	0.20	91%	(87-94)	0.11	55%	(38-68)	0.59	31%	(11-55)	0.35
	female to male	92%	(88-94)		87%	(77-93)		69%	(32-89)		60%	(1.9-94)	
Age	<40 years	95%	(92-96)	0.49	91%	(85-95)	0.86	53%	(25-76)	0.52	40%	(1.7-81)	0.87
	>40 years	95%	(93-96)		90%	(85-93)		60%	(43-73)		38%	(15-61)	
PS	0-1	95%	(94-96)	0.02	90%	(87-93)	0.35	59%	(44-71)	0.60	38%	(18-59)	NA
	2-4	86%	(70-94)		83%	(32-97)		100%	(100-100)				
Conditioning													
Intensity	myeloablative	95%	(92-96)	<0.01	91%	(87-95)	0.29	57%	(33-75)	0.91	29%	(3.0-64)	0.72
	reduced intensity	95%	(92-96)		88%	(82-92)		59%	(40-74)		43%	(16-68)	
Use of TBI	no	96%	(94-97)	<0.01	91%	(84-95)	0.08	50%	(26-70)	0.75	0%	(0-0)	0.04
	yes	93%	(91-95)		90%	(85-93)		63%	(44-77)		57%	(26-79)	
Stem cell source	PBSCs	97%	(95-98)	<0.01	79%	(55-91)	<0.01	25%	(2.0-73)	0.35	0%	(0-0)	0.64
	BM	95%	(93-96)		93%	(89-95)		63%	(46-75)		46%	(18-71)	
	CB	81%	(72-87)		77%	(60-87)		50%	(11-81)		33%	(1.8-74)	
Relation to donor	unrelated	93%	(91-95)	<0.01	91%	(87-93)	0.75	62%	(47-74)	0.13	42%	(20-63)	0.59
	related	97%	(95-98)		83%	(63-93)		20%	(0.4-63)		0%	(0-0)	
HLA disparity, allele,	8/8	95%	(91-97)	0.70	92%	(86-96)	0.42	53%	(26-74)	0.24	38%	(6.7-70)	0.72
GVH direction	others	94%	(90-96)		91%	(85-95)		68%	(40-85)		33%	(1.8-74)	
HLA disparity, allelic,	8/8	95%	(91-97)	0.32	92%	(86-96)	0.25	50%	(23-72)	0.15	29%	(2.8-65)	0.69

HVG direction	others	93%	(90-96)		91%	(85-95)		70%	(43-86)		43%	(5.9-78)	
HLA disparity, serological,	6/6	96%	(95-97)	<0.01	91%	(87-94)	0.01	54%	(36-69)	0.60	36%	(9.7-65)	0.86
GVH direction	others	90%	(87-93)		87%	(79-92)		65%	(35-84)		40%	(6.3-74)	
HLA disparity, serological,	6/6	97%	(95-98)	<0.01	92%	(88-98)	<0.01	58%	(40-73)	0.62	30%	(5.9-60)	0.67
HVG direction	others	89%	(86-92)		85%	(77-91)		58%	(29-79)		46%	(10-76)	
Anti-HLA antibody	no	92%	(84-96)	0.72	86%	(69-94)	0.40	75%	(13-96)	NA	50%	(0-99)	NA
	yes	100%	(100-100)		100%	(100-100)							
Presence of DSA	no	100%	(0-100)	0.02	100%	(100-100)	NA						
	yes	100%	(100-100)										
Immunosuppression	Cl+MTX	95%	(93-96)	0.39	91%	(87-94)	0.68	59%	(43-71)	NA	35%	(14-58)	NA
	Cl+MMF	97%	(82-99)		89%	(11-99)							
Use of ATG	no	95%	(93-96)	<0.01	90%	(86-93)	0.06	57%	(42-70)	0.40	40%	(18-61)	0.68
	yes	94%	(90-97)		91%	(76-97)		67%	(3.4-95)		0%	(0-0)	
Disease risk	Low	97%	(92-99)	0.01	91%	(71-97)	0.29	67%	(0.2-97)	0.71	100%	(100-100)	1.00
	Intermediate	96%	(94-98)		92%	(86-95)		53%	(27-73)		20%	(2.3-50)	
	High	93%	(89-95)		88%	(80-92)		68%	(43-84)		50%	(5.6-85)	
	Very High	90%	(81-95)		85%	(58-95)		20%	(0.1-695)		0%	(0-0)	
Documented infection	no	96%	(95-97)	<0.01	94%	(90-96)	<0.01	73%	(48-87)	0.05	50%	(6.1-84)	0.51
	yes	62%	(44-75)		80%	(71-87)		46%	(27-64)		33%	(11-58)	
Documented infection or FN	no	96%	(95-97)	<0.01	94%	(88-97)	0.94	73%	(31-92)	0.25	0%	(0-0)	0.68
	yes	77%	(66-85)		88%	(83-92)		54%	(37-68)		40%	(18-61)	
History of previous SCT	no	96%	(95-97)	<0.01	92%	(88-94)	0.01	59%	(42-73)	0.65	40%	(16-64)	0.87
	yes	89%	(84-92)		82%	(70-90)		56%	(28-77)		33%	(1.8-74)	
Donor chimerism around day 28	< 90%										14%	(2.0-38)	0.01
	≥ 90%										83%	(2.0-99)	

1 WBC: white blood cell, PS: performance status, TBI: total body irradiation, PBSCs:
2 peripheral blood stem cells, BM: bone marrow, CB: cord blood, HLA: human leukocyte
3 antigen, GVH: graft-versus-host, HVG: host-versus-graft, DSA: donor-specific antibodies,
4 CI: Calcineurin inhibitor, MTX: methotrexate, MMF: mycophenolate mofetil, ATG: anti-
5 thymocyte globulin, FN: febrile neutropenia, SCT: stem cell transplantation.

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Supplementary figure 1. Cumulative incidences of mortality without engraftment and re-transplantation of all patients. (a) death without mortality, (b) re-transplantation. PBSCs: peripheral blood stem cells, BM: bone marrow, CB: cord blood.



Supplementary figure 2. Cumulative incidences of engraftment in CB recipients, according to use of MMF or MTX. CB: cord blood. CI: calcineurin inhibitors. MTX: methotrexate, MMF: mycophenolate mofetil,

