

1 Table 1. Patient Characteristics

Variable	Length-of-stay at transplant		P Value
	Short term ( $\leq 100$ days)	Long term ( $> 100$ days)	
	N (%) (N = 156)	N (%) (N = 74)	
Patient age, median (range)	41 (16-67)	41 (17-65)	0.865
Patient sex			
Male	94 (60)	43 (58)	0.756
Female	62 (40)	31 (42)	
Transplant year			
2001-2005	64 (41)	46 (62)	0.003
2006-2010	92 (59)	28 (38)	
Diagnosis			
Benign	13 (8)	12 (16)	0.073
Malignant	143 (92)	62 (84)	
Disease status			
Standard	107 (69)	46 (62)	0.335
High	49 (31)	28 (38)	
HCT-CI			
0	89 (57)	42 (57)	0.825
1-2	44 (28)	23 (31)	
3-5	23 (15)	9 (12)	
HSCT type			
RPB	37 (24)	5 (6)	0.012
RBM	33 (21)	16 (22)	
URBM	73 (47)	42 (57)	
UCB	13 (8)	11 (15)	
HLA			
match	118 (76)	42 (57)	0.004
mismatch	38 (24)	32 (43)	
Conditioning regimen			
Myeloablative	91 (58)	47 (64)	0.454
Reduced intensity	65 (42)	27 (36)	
GVHD prophylaxis			
CsA	57 (37)	28 (38)	0.849
Tac	99 (63)	46 (62)	

2 Disease status: Standard includes acute myeloid leukemia at first or second complete remission  
3 (CR1 or CR2) at transplant, acute lymphoblastic leukemia (CR1, CR2), chronic myeloid leukemia at  
4 first or second chronic phase (CP1 or CP2), myelodysplastic syndrome (refractory anemia or  
5 refractory cytopenia with multilineage dysplasia), malignant lymphoma (CR1, CR2). High includes  
6 the others.

7 HCT-CI = hematopoietic stem cell transplantation comorbidity index

8 HSCT = hematopoietic stem cell transplantation; RPB = related peripheral blood stem cell; RBM =  
9 related bone marrow; URBM = unrelated bone marrow; UCB = umbilical cord blood

10 HLA = human leukocyte antigen; HLA match was defined as 6/6 or 8/8 HLA matched donor at the  
11 antigen or allele levels, respectively. Mismatch includes the others.

12 GVHD = graft-versus-host disease; CsA = cyclosporine regimen; Tac = tacrolimus regimen

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34 Table 2. Cause of the first readmission

Cause	N=145
Relapse	19 (13%)
Infection	65 (45%)
Acute/Chronic graft-versus-host disease	22 (15%)
Liver complications	8 (6%)
Lung complications	6 (4%)
Abnormality of blood cell count	6 (4%)
Renal complications	4 (3%)
Cerebral nervous disease	4 (3%)
Others	11 (7%)

35 Infection includes fever of unknown origin

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47 Table 3. Risk factors for the first readmission with non-relapse transplant-related complication

Variable	HR	95% CI	P Value
Length-of-stay at transplant			
Short term	1.00	-	-
Long term	1.53	1.08 - 2.18	0.018
Patient age			
< 40	1.00	-	-
≥ 40	1.14	0.80 – 1.62	0.459
Patient sex			
Male	1.00	-	-
Female	0.82	0.57 – 1.18	0.285
Diagnosis			
Benign	1.00	-	-
Malignancy	0.78	0.47 – 1.30	0.34
Disease status			
Standard	1.00	-	-
High	1.02	0.70 – 1.48	0.906
HLA disparity			
Match	1.00	-	-
Mismatch	1.21	0.84 – 1.75	0.308
HCT-CI*			
0	1.00	-	-
1-2	1.03	0.69 – 1.53	0.895
3-5	1.27	0.78 – 2.08	0.328
Conditioning regimen			
Reduced intensity	1.00	-	-
Myeloablative	1.03	0.72 – 1.46	0.881
HSCT type			
RPB	1.00	-	-
RBM	1.11	0.63 – 1.96	0.707
URBM	1.05	0.65 – 1.69	0.853
UCB	1.25	0.66 – 2.38	0.497
GVHD prophylaxis			
CsA	1.00	-	-
Tac	1.29	0.89 – 1.88	0.175

Transplant year				
2001-2005	1.00	-	-	
2006-2010	0.75	0.53 – 1.06	0.107	

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48 HR = hazard ratio.

49 CI = confidence interval.

50 HLA = human leukocyte antigen

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53 related bone marrow; URBM = unrelated bone marrow; UCB = umbilical cord blood

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69 Table 4. Risk factors for readmission with infections

Variable	HR	95% CI	P Value
Length-of-stay at transplant			
Short term	1.00	-	
Long term	1.64	1.03 - 2.61	0.038
Patient age			
< 40	1.00	-	-
≥ 40	1.04	0.65 - 1.64	0.879
Patient sex			
Male	1.00	-	-
Female	0.86	0.53 - 1.39	0.54
Diagnosis			
Benign	1.00	-	-
Malignancy	0.61	0.33 - 1.15	0.125
Disease status			
Standard	1.00	-	-
High	0.75	0.44 - 1.26	0.275
HLA disparity			
Match	1.00	-	-
Mismatch	1.08	0.66 - 1.78	0.746
HCT-CI			
0	1.00	-	-
1-2	0.90	0.52 - 1.53	0.689
3-5	1.27	0.67 - 2.43	0.464
Conditioning regimen			
Reduced intensity	1.00	-	-
Myeloablative	0.86	0.53 - 1.40	0.537
HSCT type			
RPB	1.00	-	-
RBM	2.33	0.97 - 5.63	0.059
URBM	2.30	1.03 - 5.12	0.042
UCB	2.49	0.94 - 6.60	0.067
GVHD prophylaxis			
CsA	1.00	-	-
Tac	1.52	0.92 - 2.53	0.106
Transplant year			
2001-2005	1.00	-	-
2006-2010	0.75	0.47 - 1.19	0.224

70 HR = hazard ratio.  
71 CI = confidence interval.  
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73 HCT-CI = hematopoietic stem cell transplantation comorbidity index  
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75 related bone marrow; URBM = unrelated bone marrow; UCB = umbilical cord blood  
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92 Table 5. Risk factors for longer length-of-stay based on a multivariable analysis

Variable	OR	95% CI	P Value
Patient sex			
Male	1.00	-	-
Female	2.14	1.03 – 4.45	0.042
HLA disparity			
Match	1.00	-	-
Mismatch	2.78	1.21 – 6.38	0.016
HSCT type <sup>#</sup>			
RPB	1.00	-	-
RBM	5.78	1.55 – 21.5	0.009
URBM	9.16	2.50 – 33.6	0.001
UCB	4.53	0.90 – 22.9	0.068
GVHD prophylaxis			
CsA	1.00	-	-
Tac	0.40	0.17 – 0.93	0.034
Transplant year			
2001-2005	1.00	-	-
2006-2010	0.26	0.12 – 0.56	0.001
CMV infection			
Negative	1.00	-	-
Positive	12.8	2.48 – 66.5	0.002
Fungal infection			
Negative	1.00	-	-
Positive	12.3	2.03 – 74.3	0.006
LONIPC			
Negative	1.00	-	-
Positive	10.8	2.93 – 40.1	0.0004
Acute graft-versus-host disease			
Grade 0-I	1.00	-	-
Grade II-IV	5.58	2.52 – 12.4	0.0004

94 OR = odds ratio

95 CI = confidence interval

96 HLA = human leukocyte antigen

97 HSCT = hematopoietic stem cell transplantation; RPB = related peripheral blood stem cell; RBM =



98 related bone marrow; URBM = unrelated bone marrow; UCB = umbilical cord blood  
99 GVHD = graft-versus-host disease; CsA = cyclosporine regimen; Tac = tacrolimus regimen  
100 CMV = cytomegalovirus  
101 LONIPC = late-onset noninfectious pulmonary complication  
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