

# The outcome of allogeneic hematopoietic stem cell transplantation among elderly patients with severe aplastic anemia and a predictive model from the Chinese Blood and Marrow Transplant Registry group

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**Supplemental Table 1.** The basic characteristics, conditioning regimen and transplantation related mortality among different donor groups.

	<b>MSD</b>	<b>HID</b>		<b>URD</b>	<b>P</b>
Age, median (range), years	52 (50-58)	54 (50-74)		52 (50-55)	0.200
Age ≥ 55 years, No. (%)	4 (25.0%)	20 (36.4%)		2 (40.0%)	0.673
Age ≥ 60 years, No. (%)	0	6 (10.9%)		0	0.288
Interval between the diagnosis to transplant, median (range), months	3.6 (0.2-260.5)	4.0 (0.4-279.8)		56.0 (3.6-245.3)	0.276
RBC infusions, median (range)	10 (4-50)	15 (2-396)		34 (10-50)	0.445
PLT infusions, median (range)	7.5 (2-550)	15 (1-234)		20 (20-28)	0.132
Conditioning regimen	Cy 200mg/kg r-ATG 10mg/kg (n=2)	<b>G-CSF/ATG based</b>	<b>PT-Cy based</b>	Cy 200mg/kg r-ATG 10mg/kg (n=1)	NA
	Flu 150mg/m <sup>2</sup> Cy 100 mg/kg r-ATG 10 mg/kg (n=6)	Bu 6.4mg/kg Flu 150mg/m <sup>2</sup> Cy 100mg/kg ATG 10mg/kg (n=41)	Bu 3.2mg/kg Flu 150mg/m <sup>2</sup> Cy 29mg/kg r-ATG 10mg/kg PT-Cy 100mg/kg (n=8)	Flu 150mg/m <sup>2</sup> Cy 100 mg/kg r-ATG 10 mg/kg (n=3)	
	Bu 3.2mg/kg Flu 150mg/m <sup>2</sup> Cy 100mg/kg r-ATG 10mg/kg (n=8)	TBI 3cGy Bu 6mg/kg Flu 120mg/m <sup>2</sup> Cy 50mg/kg ATG 10mg/kg (n=6)		Bu 3.2mg/kg Flu 150mg/m <sup>2</sup> Cy 29mg/kg r-ATG 10mg/kg PT-Cy 100mg/kg (n=1)	
Reasons of transplantation related	None	severe infection (n=8)		regimen-related toxicity (n=1)	

mortality		regimen-related toxicity (n=4) thrombotic microangiopathy, TMA (n=1) haemorrhagic events (n=1) primary graft failure leading to miscellaneous causes (n=1)	severe infection (n=1)	
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**Abbreviations:**

granulocyte colony-stimulating factor, G-CSF

busulfan Bu, fludarabine Flu, cyclophosphamide Cy

rabbit antithymocyte globulin r-ATG

**Supplemental Table 2.** The univariate analysis of overall survival outcomes.

<b>Variables</b>	<b>5-year OS</b>	<b>P</b>
<b>The total cohort (N=76)</b>	<b>77.2±4.9%</b>	
<b>Patient Age</b>		<b>0.014*</b>
Aged 50-54 (N=50)	86.0±4.9%	
Aged 55-74 (N=26)	60.8±9.7%	
<b>Patient Gender</b>		<b>0.028*</b>
Male (N=37)	89.2±5.1%	
Female (N=39)	66.3±7.6%	
<b>Disease type</b>		0.332
SAA (N=60)	79.4±5.3%	
vSAA (N=16)	68.8±11.6%	
<b>Timing of HSCT</b>		0.587
Upfront (N=35)	79.5±6.9%	
Salvage (N=41)	75.3±6.8%	
<b>Disease course</b>		0.940
< 6 months (N=41)	77.4±6.7%	
≥6 months (N=35)	76.9±7.2%	
<b>Previous ATG</b>		0.157
No (N=54)	81.0±5.4%	
Yes (N=22)	68.2±9.9%	
<b>HCT-CI</b>		<b>&lt; 0.001*</b>
0-1 (N=61)	86.9±4.3%	
2-3 (N=15)	38.1±12.9%	
<b>Donor type</b>		0.053
Matched sibling donor (N=16)	100%	

Haploidentical donor (N=55)	71.8±6.2%	
Unrelated donor (N=5)	60.0±21.9%	
<b>HLA locus</b>		0.119
Matched (N=20)	90.0±6.7%	
Mismatched (N=56)	72.3±6.1%	
<b>ABO blood type incompatibility</b>		0.054
Compatible (N=41)	84.9±5.7%	
Incompatible (N=35)	68.6±7.8%	
<b>Graft type</b>		0.267
BM plus PB (N=45)	82.0±5.8%	
PB (N=31)	70.3±8.4%	
<b>MNC</b>		0.848
< 10 (N=31)	77.4±7.5%	
≥ 10 (N=43)	78.3±6.4%	
<b>CD34</b>		0.892
< 5 (N=39)	76.9±6.7%	
≥ 5 (N=36)	76.6±7.3%	

**Supplemental Figure 1.** The cumulative incidence of myeloid engraftment (A) and platelet engraftment (B), grade II-IV aGvHD (C), III-IV aGvHD (D), cGvHD (E), moderate cGvHD (F), CMV (G) and EBV reactivation (H). The cumulative incidences of myeloid engraftment were 100%, 89.1±0.2%, and 100% in the MSD, HID and URD groups, respectively ( $P = 0.005$ ). The retrospective incidences of platelet engraftment were 100%, 72.7±0.4%, and 60.0±6.8% in the MSD, HID and URD groups, respectively ( $P = 0.037$ ). The description of data collection in the study (I).

