Alternative donor transplantation for acute myeloid leukemia in patients aged ≥ 50 years: young HLA-matched unrelated or haploidentical donor?

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First allogeneic transplant for AML in the US, 2008-2015	Haploidentical donor		Matched unrelated donor	
Selection Criteria	Excluded	Remaining	Excluded	Remaining
Donor • Haploidentical (≥2 HLA MM) • Matched unrelated donor (8/8)		771		2458
Select patients ≥50 years old	323	448	1074	1384
Select BM and PBSC	Cord blood (56)Multiple donors (3)	389	• Cord blood (22)	1362
Exclude patient older than 80 years	1	388	1	1361
 GVHD prophylaxis: Haploidentical: Post-transplant cyclophosphamide + calcineurin inhibitor + mycophenolate Matched unrelated donor: Calcineurin inhibitor + mycophenolate or calcineurin inhibitor + methotrexate 	CD34 selected (39) Ex-vivo T-cell depletion (34) In-vivo T-cell depletion (28) Other (35)	252	 CD34 selected (17) In-vivo T-cell depletion (42) Other (9) 	1293
 Select common conditioning regimens for unrelated donor transplant Busulfan + Cyclophosphamide Busulfan + Fludarabine Melphalan + Fludarabine 	0	252	292 TBI + Cy (92) TBI + Flud (97) TBI + other (33) Cy + other (23) Bu + other (31) Other (16)	1001
Exclude unrelated donors older than 40 years	0	252	182 • 40 - 50 (142) • 51 - 60 (40)	819
Exclude patients not in remission	60	192	188	631