Development and validation of a novel clinical and transplant-specific prognostic score in a large cohort of patients with myelodysplastic syndromes (MDS)

1059 Adult patients (≥18 years) with myelodysplastic syndromes
European Society for Blood and Marrow Transplantation (EBMT) cohort

EBMT prognostic score

Risk factors	Score
1 - Age at transplant, years	
< 50	0
≥ 50	2
2 - Blood blasts at transplant, %	
≤ 1	0
>1%	1
3 - Platelets at transplant, x10⁹/L	
>50	0
≤ 50	1
4 - Donor type	
HLA-identical sibling	0
matched unrelated	1
5 - Cytogenetic risk	
very good to poor	0
very poor/monosomal karyotype	2
6 - Cytomegalovirus serostatus of the recipient	
negative	0
positive	1
7 - Karnofsky Index, %	
90 to 100%	0
< 90	1

Risk groups	Score	Hazard ratios for death
1 - Low	0-1	Reference
2 - Intermediate	2-3	2.02 (95% CI, 1.41-2.90)
3 - High	4-5	3.49 (95% CI, 2.45-4.97)
4 - Very high	>5	5.90 (95% CI, 4.01-8.67)

Cross-validation	C- statistics
EBMT	0.609 (95% CI, 0.588-0.629)
GITMO*	0.555
CIBMTR**	0.579

*Gruppo Italiano Trapianto di Midollo Osseo registry
**Center for Blood and Marrow Transplant Research registry

Cross-validation yielded significant and reproducible improvement in prognostic ability of EBMT prognostic score compared to the already exsisting methods