

**Risk-Based Stratification of MDS Based on the
International Prognostic Scoring System (IPSS) and Proposed Modifications**

IPSS Risk Categories (1997) Prior to Active Therapies					
Score	0	0.5	1.0	1.5	2.0
Bone marrow myeloblasts	< 5%	5%-10%		11%-20%	21%-30% (considered AML)
Karyotype	Normal, del(5q), del(Y), del(20q) as sole abnormalities	Other abnormalities	del(7), 7+, or ≥ 3 abnormalities		
Number of cytopenias	0, 1	2, 3	Anemia (hemoglobin < 10 g/dL), neutropenia (absolute neutrophil count < 1800/μL) and/or thrombocytopenia (platelets < 100,000/μL)		

Current IPSS and Proposed Revised IPSS With Survival and Risk of Leukemic Transformation						
Current IPSS n = 816				Proposed Revisions to IPSS: IPSS-R* n = 4417		
Category	Score	Median Survival, y	Evolution to AML, y (25%)	Risk Category Proposed Changes	Median Survival, y	Evolution to AML, y (25%)
Low	0	5.7	9.4	Very low	6.8	NR
Intermediate-1	0.5-1.0	3.5	3.3	Low	4.3	10.1
Intermediate-2	1.5-2.0	1.2	1.1	Intermediate	2.3	2.8
High:	≥ 2.5	0.4	0.2	High	1.5	1.2
				Very high	0.9	0.7
*IPSS-R is still being modified by the International Working Group for Prognosis in Myelodysplastic Syndromes (IWG-PM), including assignment of scores and the final attributes of each category						
Proposed Revisions						
Karyotype:						
Very good: del(11q), -Y						
Good: normal, del(5q), del(12p), del(20q), double incl. del(5q)						
Intermediate: +8, i(17q), +19, +21, any other single, any other double, independent clones, del(11q), 8 ⁺						
Poor: der(3)(q21)/der(3)(q26), double incl. -7/7q-, complex 3 abnormalities						
Very poor: complex (> 3 abnormalities)						
Cytopenias proposed revision:						
Adverse risk: thrombocytopenia at presentation, high transfusion burden						
Other factors considered in overall survival: elevated LDH, elevated ferritin, bone marrow fibrosis, comorbidity score						

References

Adapted from Kurtin, 2010; based on publications by Garcia-Manero. *Am J Hematol.* 2011;86:491-498; Greenberg et al. *Leuk Res.* 2011;35:S6. Abstract 14; Schanz et al. EHA 2010. Abstract 0535; Greenberg et al. *Blood.* 1997;89:2079-2088 [published correction in *Blood.* 1998;91:1100]; P. Greenberg, personal communication, June 13, 2011; Kurtin, *JAdPrO*, in print September 2011.