

The Relationship between Myelodysplastic Syndromes (MDS) and Leukemia

Physicians use a scoring system to calculate the risk of developing leukemia in Myelodysplastic Syndromes (MDS). This is called the International Prognostic Scoring System (IPSS). The IPSS gives each patient a score to help their doctor understand how quickly their MDS is progressing and what is likely to happen to their disease over time.

The score is based on several factors that are linked to MDS:

- Percentage of blasts in the bone marrow
- Changes in cell chromosomes, also called cytogenetics
- Low blood cell counts or cytopenias

Each factor gets a score. Together, the scores tell which risk groups you fall into. Your IPSS score helps your doctor to answer the following questions:

- How severe is your case of MDS?
- How likely is your case to become acute myeloid leukemia or AML if treated only with supportive care?
- How long are you likely to live if you are treated only with supportive care?

Factor	Value	IPSS Score
Blasts in Bone Marrow	less than 5%	0
	5% to 10%	0.5
	11% – 20%	1.5
	21% – 30%	2.0
Cell DNA changes (cytogenics)	Good	0
	Intermediate	0.5
	Poor	2.0
Low blood counts or cytopenias	0 or 1 cytopenia	0
	2 or 3 cytopenias	0.5

Using the IPSS, patients given a score between 0 and 3.0. A patient can be put into one of four risk groups, two lower-risk and two higher-risk. Scores of less than 1.5 are considered lower-risk. This score tells you what risk group you fall into.

For example:

- If your IPSS score is 0, you are in the low-risk group
- If your IPSS score is 0.5 to 1, you are in the intermediate-1 risk group
- If your IPSS score is 1.5 to 2, you are in the intermediate-2 risk group
- If your IPSS score is more than 2.0, you are in the high-risk group