Table 8 - WHO 2008 classification for Myelodysplastic syndromes*

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	Features	
Classification	**Peripheral blood**	**Bone marrow**
Refractory cytopenias with unilineage dysplasia (RCUD) – comprises refractory anaemia (RA), refractory neutropenia (RN) and refractory thrombocytopenia (RT)	Unicytopenia or bicytopenia. No or rare blasts.	Unilineage dysplasia (> 10% of cells in one myeloid lineage). < 5% blasts. <15% ring sideroblasts.
Refractory anaemia with ring sideroblasts	Anaemia. No blasts.	> 15% ring sideroblasts. Erythroid dysplasia only. < 5% blasts.
Refractory cytopenia with multilineage dysplasia	Cytopenia(s). Blasts < 1%. No Auer rods. < 1 x 10^9/L monocytes.	Dysplasia in > 10% of cells in > 2 myeloid lineages. <5% blasts. No Auer rods. +/- 15% ring sideroblasts.
Refractory anaemia with excess blasts-1	Cytopenia(s). <5% blasts. No Auer rods. < 1 x 10^9/L monocytes.	Unilineage or multilineage dysplasia. 5-9% blasts. No Auer rods.
Refractory anaemia with excess blasts-2	Cytopenia(s) 5-19% blasts +/- Auer rods < 1 x 10^9/L monocytes	Unilineage or multilineage dysplasia 10-19% blasts +/- Auer rods
Myelodysplastic syndrome – unclassifiable	Cytopenia(s). ≤ 1% blasts.	Unequivocal dysplasia in < 10% of cells in > 1 myeloid cell lines when accompanied by a cytogenetic abnormality considered as presumptive evidence for a diagnosis of MDS. < 5% blasts.
MDS associated with isolated del(5q)	Anaemia. Usually normal or increased platelet count. No/rare blasts (<1%).	Normal to increased megakaryocytes with hypolobated nuclei. < 5% blasts. Isolated del(5q) cytogenetic abnormality. No Auer rods.

* Reference: Swerdlow SH, Campo E, Harris NL et al. WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues, Fourth Edition. 2008