

Defining High-Risk Multiple Myeloma



According to the International Myeloma Working Group (IMWG)

Cytogenetic Abnormalities

Not all chromosomal abnormalities are viewed as portending equally poor prognosis^{1,2}

Having > 1 abnormality is associated with poorer prognosis¹

IgH Translocations^{1,3,4}

- t(4;14)
- t(14;16)
- t(14;20)

Genomic Imbalance^{1,3}

- del 17p
- Gain 1q

Clinical/Disease Features

- R-ISS (stage II/III)^{2,3}
- High serum β 2-microglobulin (≥ 5.5 mg/L)^{2,3}
- Renal insufficiency^{1,3}
- Low serum albumin³
- Elevated LDH: (LDH > Upper Limit of Normal)^{2,3}
- Presence of EMD or plasma cell leukemia^{1,3,4}

Quality of Response

Primary resistant MM/inadequate response to frontline therapy⁴

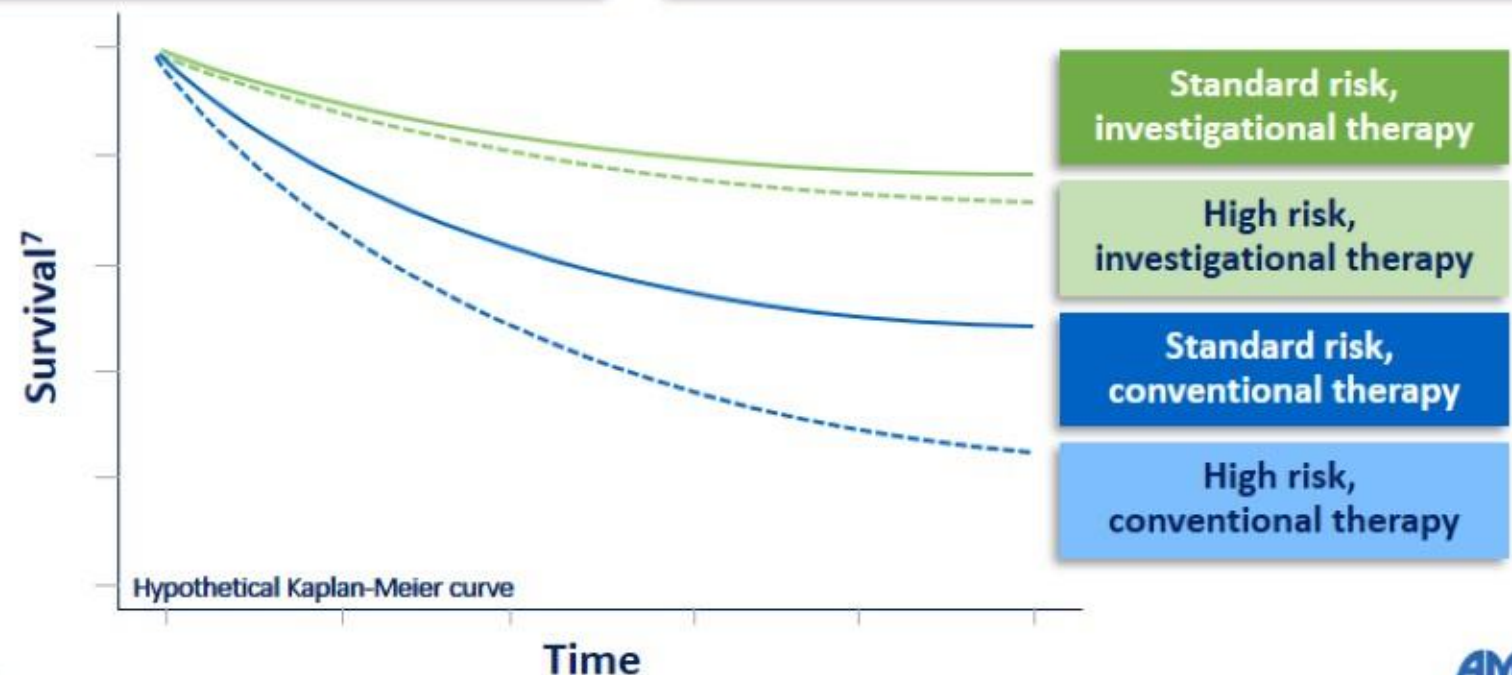
Early relapse after first line of therapy is associated with poor prognosis⁵

Relapse occurring within ≤ 12 months of autologous stem cell transplantation and/or primary therapy^{5,6}

Unmet Need & Challenges⁷

- Lack of upfront testing in NDMM
- Lack of common ways to categorize high-risk disease
- Lack of consensus or standardized treatment

Investigational therapies aim to overcome high-risk status and produce outcomes that more closely match those of standard-risk patients



EMD, extramedullary disease; LDH, lactate dehydrogenase; MM, multiple myeloma; NDMM, newly diagnosed multiple myeloma; R-ISS, Revised International Staging System.

1. Sonneveld P, et al. *Blood*. 2016;127:2955-2962. 2. Palumbo A, et al. *J Clin Oncol*. 2015;33:2863-2869. 3. Durie BGM. *Concise Review of the Disease and Treatment Options*. 2018;1-55. 4. Mikhael JR, et al. *Mayo Clin Proc*. 2013;88:360-376.

5. Majithia N, et al. *Leukemia*. 2016;30:2208-2213. 6. Cornell RF, et al. *Bone Marrow Transplant*. 2016;51:479-491. 7. Lancman G, et al. *Clin Adv Hematol Oncol*. 2017;15:870-879.

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