



mSMART

Mayo Stratification for Myeloma And Risk-adapted Therapy

Newly Diagnosed Myeloma

mSMART

- Multiple myeloma is increasingly recognized as more than one disease, characterized by marked cytogenetic, molecular, and proliferative heterogeneity.
- The result is widely varied outcome ranging from low to very high risk.
- Treatment is evolving rapidly as more effective agents and combinations become available.
- mSMART (Mayo Stratification for Myeloma And Risk-adapted Therapy) is a consensus opinion that takes into account genetically determined risk status and the various treatment strategies currently available.
- The general approach is presented below (mSMART – off-study). However, **clinical trials must be considered and are preferred** at every level (mSMART – on-study).
- Management decisions are also varied depending on renal function and presence or absence of coexisting amyloidosis.

mSMART 2.0: Classification of Active MM

High-Risk

- FISH
 - Del 17p
 - t(14;16)
 - t(14;20)
- GEP
 - High risk signature

Intermediate-Risk*

- FISH
 - t(4;14)[‡]
- Cytogenetic Deletion 13 or hypodiploidy
- PCLI $\geq 3\%$

Standard-Risk*†

- All others including:
- Hyperdiploid
 - t(11;14)**
 - t(6;14)

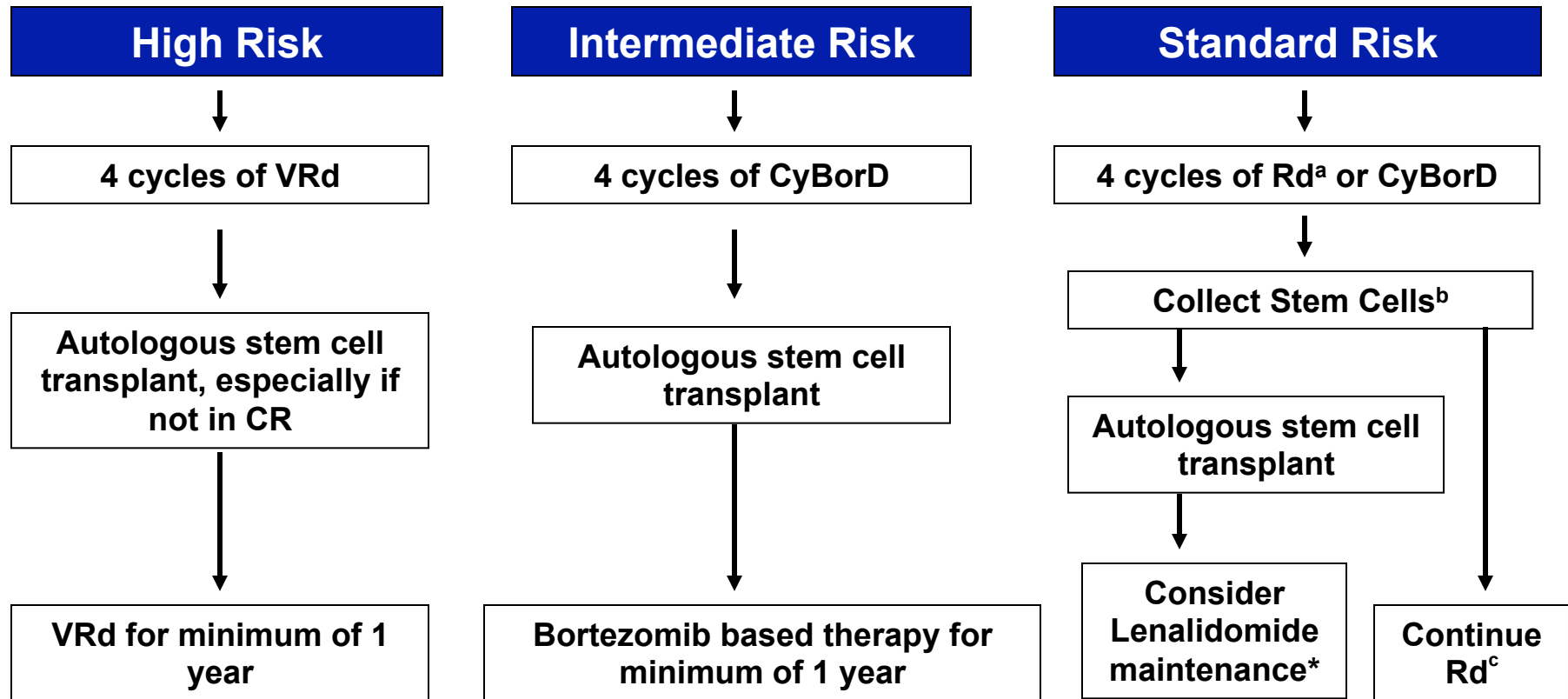
* Note that a subset of patients with these factors will be classified as high-risk by GEP

† LDH >ULN and beta-2 M > 5.5 may indicate worse prognosis

‡ Prognosis is worse when associated with high beta-2 M and anemia

**t(11;14) may be associated with plasma cell leukemia

mSMART – Off-Study Transplant Eligible



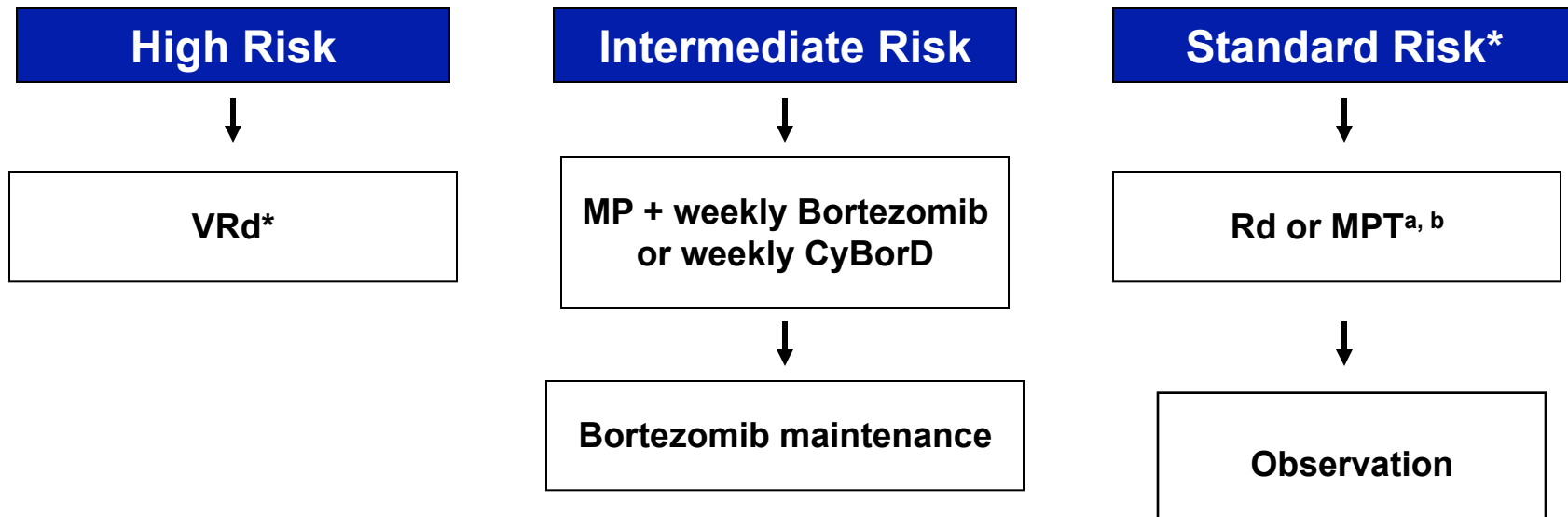
^a Bortezomib containing regimens preferred in renal failure or if rapid response needed

^b If age >65 or > 4 cycles of Rd Consider G-CSF plus cytoxan or plerixafor

^c Continuing Rd is option for patients responding to Rd and with low toxicities; Dex is usually discontinued after first year

* Consider risks and benefits; If used, consider limited duration 12-24 months

mSMART – Off-Study *Transplant Ineligible*



^a In patients treated with Rd, continuing treatment is an option for patients responding well with low toxicities; Dex is usually discontinued after first year

^b Bortezomib containing regimens preferred in renal failure or if rapid response needed

*Clinical trials strongly recommended as the first option