

Treatment of Relapsed Myeloma Mayo Consensus



Scottsdale, Arizona



Rochester, Minnesota



Jacksonville, Florida

mSMART

Mayo Stratification for Myeloma And Risk-adapted Therapy

Relapsed Myeloma

mSMART

- Multiple myeloma is increasingly recognized as a heterogenous disease, characterized by marked cytogenetic, molecular, and proliferative variability.
- Availability of novel agents are rapidly redefining the treatment paradigm for patients with myeloma and with multiple available treatment options.
- This is a consensus opinion that takes into account the various risk factors and the treatment strategies currently available.
- The general approach is presented below. However, clinical trials must be considered and are preferred at every level.
- Management decisions should take into account the age as well as other comorbidities such as renal failure, diabetes and presence or absence of coexisting amyloidosis.

mSMART 2.0: Classification of Relapsed MM

High-Risk

- Relapse <12 months from transplant or progression within first year of diagnosis
- FISH
 - Del 17p
 - t(14;16)
 - t(14;20)
- High risk GEP

Intermediate-Risk

- FISH
 - t(4;14)
 - 1q gain
- High PC S-phase

Standard-Risk

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

Abbreviations for Major Regimens

- KRd, carfilzomib, lenalidomide, dexamethasone
- KPd, carfilzomib, pomalidomide, dexamethasone
- CyBord, cyclophosphamide, bortezomib, dexamethasone
- IRd, ixazomib, lenalidomide, dexamethasone
- ICd, ixazomib, cyclophosphamide, dexamethasone
- Rd-Elo, lenalidomide, dexamethasone, elotuzumab
- Pom-dex, pomalidomide, dexamethasone
- PVd, pomalidomide, bortezomib, dexamethasone
- Dara, daratumumab
- DVd, daratumumab, bortezomib, dexamethasone
- DRd, daratumumab, lenalidomide, dexamethasone

First Relapse Off-Study

On maintenance

Fit Patients*

**Indolent Relapse*
or Frail patients**



**KPd or DVd if Rev
maintenance**

**DRd if Vel
maintenance**



**DVd or ICd if Rev
maintenance**

**IRd or DRd if Vel
maintenance**

Off-therapy/ Unmaintained*

Fit Patients*

**Indolent Relapse* or
Frail patients**



KRd or DRd



IRd or ERd

***Consider salvage auto SCT in patients eligible for ASCT who have not had transplant before; Consider 2nd auto SCT if eligible and >18 months unmaintained or >36 months maintained response to first auto**

Second or later Relapse Off-Study

Not Plasma Cell Leukemia (PCL) or Similar extramedullary disease (EMD)

Single Refractory*

- Refractory to Imid or PI but not both



DVd if refractory to Imid

DRd if refractory to PI**

Dual Refractory*

- Bortezomib and/or Ixazomib
- Lenalidomide



Pom-based regimen
(Pom-Dex or Pom-Cyclo-Dex) *plus*
daratumumab**
Or

KPd/KRd

Triple Refractory*

- Bortezomib and/or Ixazomib
- Lenalidomide
- Carfilzomib



Pom-based regimen
(Pom-Dex or Pom-Cyclo-Dex) *plus*
daratumumab**

Triple Refractory*

- Bortezomib and/or Ixazomib
- Lenalidomide
- Pomalidomide



Dara-based regimen;**
or
Alkylator-based regimen if alkylator naïve; or
Proteasome inhibitor *plus* panobinostat

*Auto transplant is an option, if transplant candidate and feasible; **If known to be refractory to Daratumumab as single agent, use elotuzumab instead

Second or later Relapse – Off-Study

Quadruple-refractory (Lenalidomide, Pomalidomide, Bortezomib, and Carfilzomib)



VDT-PACE* x 2 cycles if possible.*

Auto transplant if transplant candidate; if not, treat with regimens that the patient is not known to be refractory to (eg., daratumumab-containing regimen; panobinostat-containing regimen; bendamustine; alkylator-containing combination if not alkylator refractory; or anthracycline containing regimen such as RAD, VDD, PAD, or CHOP)

*CVAD or similar regimen can be used in place of VDT-PACE in older patients or patients with poor functional status

Second or later Relapse – Off-Study

Secondary PCL or extensive EMD



VDT-PACE x 2 cycles;*

Auto transplant if transplant candidate; if not maintain with one of the regimens listed that the patient is not known to be refractory to (eg., daratumumab-containing regimen; alkylator-containing combination if not alkylator refractory; or anthracycline containing regimen such as RAD, VDD, PAD, or CHOP)

*CVAD or similar regimen can be used in place of VDT-PACE in older patients or patients with poor functional status