



[PDF](#)

MULTIPLE MYELOMA: EVERY YEAR A NEW STANDARD?

S. Vincent Rajkumar, Mayo Clinic, Rochester, MN, USA. (summary made from slides presented)

When should treatment be initiated?

Potential New Myeloma or Smoldering Myeloma

Any Myeloma Defining Events?	No Myeloma Defining Events (SMM)	
	High Risk SSM (Median TTP ~2 years)	Intermediate or Low Risk SSM
	High Risk SSM Or Evolving SSM	
<i>Treat as Myeloma</i>	• Early Therapy: Len or Rd • Clinical Trials • Observation	<i>Observation</i>

Initial Treatment of Myeloma

Newly Diagnosed Myeloma

Not Transplant Candidate		Transplant Candidate	
		VRd x 3-4 cycles	
VRd x 9 months; Len Maintenance until progression	Frail patients Rd x 1 year; Len Maintenance until progression	Transplant Len Maintenance (Standard risk) Bortezomib-based Maintenance (High risk)	
Newly Diagnosed Myeloma			
Len not available: VTd	Acute renal failure: VCD	High Risk MM in USA: KRd	Other Situations: PAD, VMP

Key questions

Can we improve on the VRd triplet?

- Carfilzomib based (eg., KRd)
- Monoclonal Antibody based (eg., DRd)
- Alkylator based (eg., KCd)

Should we use quadruplet [Dara-VMP (ALCYONE), Dara-VTd (Cassiopeia), KCRd (MRC XI)]?

- Cost
- Toxicity

Key questions

- OS is not practical
- Alternatives?
MRD negative rate plus No evidence of survival impairment
PFS benefit plus Trend to OS benefit (CASSIOPEIA)

Myeloma: Frontline Treatment

Newly Diagnosed Myeloma

Not Transplant Candidate		Transplant Candidate	
VRd x 8-12 cycles (VTd/VCD if VRd not available) Len Maintenance Or DRd until progression		VRd x 3-4 cycles or Dara based quadruplet	
Frail patients Rd x 1 year; Len Maintenance until progression		In selected high-risk patients	
		Auto SCT Maintenance: Len for std. risk; Bortezomib for high risk	VRd x 4 cycles Len Maintenance

Based on CALGB 100104; S0777, IFM-2009, CTN 0702, HOVON, MAIA, CASSIOPEIA

Myeloma: First relapse

First Relapse: Consider salvage auto transplant in eligible patients

Not refractory to Lenalidomide*		Refractory to Lenalidomide	
<i>DRd</i>	<i>Alternatives: KRd, IRd, ERd</i>	<i>DVd or DPd</i>	<i>Alternatives: EPd, VCd, KPd, IPd, Pd</i>

*Relapse occurring while off all therapy, or while on small doses of single agent lenalidomide, or on bortezomib maintenance

Myeloma: Second or higher relapse

First Relapse options	Additional options
<i>Any first relapse options that have not been tried (2 new drugs; triplet preferred)</i>	• <i>VDT-PACE like anthracycline containing regimens</i> • <i>Melphalan</i> • <i>Bendamustine-based regimens</i> • <i>Adding Panobinostat</i> • <i>Quadruplet regimens</i>

*Relapse occurring while off all therapy, or while on small doses of single agent lenalidomide, or on bortezomib maintenance

Active Drugs in Multiple Myeloma

Old Drugs	Older Drugs (2003-2007)	Recently approved Drugs (2013-2015)	Future Drugs
• <i>Alkylators</i> • <i>Steroids</i> • <i>Interferon</i> • <i>Anthracyclines</i>	• <i>Bortezomib</i> • <i>Thalidomide</i> • <i>Lenalidomide</i> • <i>Liposomal doxorubicin</i>	• <i>Carfilzomib</i> • <i>Pomalidomide</i> • <i>Panobinostat</i> • <i>Ixazomib</i> • <i>Daratumumab</i> • <i>Elotuzumab</i>	<i>CAR-Ts</i> <i>GSK 2857916</i> <i>AMG 420</i> <i>Isatuximab</i> <i>Selinexor</i> <i>Venetoclax</i> <i>Filanesib</i> <i>LGH 447</i> <i>Dinaciclib</i> <i>Oprozomib</i> <i>Marizomib</i> <i>Melflufen</i>

Selection of Regimen (TRAP)	Principles
• Timing of the relapse • Response to prior therapy • Aggressiveness of the relapse • Performance status	• Prefer triplets • At least two new drugs • Consider transplant eligible patients • Clinical trials