A MULTI-CRITERIA DECISION FRAMEWORK TO GUIDE TREATMENT DECISION-MAKING IN PATIENTS WITH LENALIDOMIDE-REFRACTORY MULTIPLE MYELOMA POST-DRd

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It is based on a abstract presented at the European Hematology Association (EHA) Congress, held from the 12th–15th June 2025.[1]
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INTRODUCTION

Multiple myeloma is the second most common haematological malignancy, with an increasing global incidence.[2]

A study presented at the EHA Congress elicited treatment preferences from 20 haematologists from the European Myeloma Research Network Research Italy Working Group and other stakeholders to identify decision criteria to support physicians in choosing second-line treatment for patients who relapse after DRd.[1]

STUDY STAGES

1. Decision criteria were identified through a literature review

2. Decision criteria were discussed during a workshop, (20 haematologists, one methodologist, two decision makers, one patient representative)

3. A subsequent, focused literature review assessed data availability for each treatment alternative

4. Each treatment option was allocated a performance level for each criterion

5. Stakeholders weighted the different criteria and scored performance levels for each treatment option via a questionnaire

6. Questionnaire results were analysed in a final stakeholder workshop

References
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Abbreviations
aBCMA: anti-B-cell maturation antigen; DRd: daratumumab, lenalidomide and dexamethasone; EPAR: European Public Assessment Report; HR: hazard ratio; IV: intravenous; Kd: carfilzomib and dexamethasone; PFS: progression-free survival; PVd: pomalidomide, bortezomib and dexamethasone; RCT: randomised clinical trial; SC: subcutaneous; SVd: selinexor, bortezomib and dexamethasone.

MULTI-CRITERIA DECISION

The final Multi-Criteria Decision Analysis comprised five main criteria: efficacy, safety, route of administration, organisational impact and acquisition cost.

Efficacy was rated the most relevant criterion by 83.3% of participants (with a median weight of 38.1%), and safety was ranked second-most relevant by 75% (with a median weight of 26.8%).[1]

Three non-aBCMA EMA-approved therapeutic options are recommended in the 2025 EHA guidelines for lenalidomide-refractory patients who relapse post-DRd:[3]

Kd **PVd** **SVd**

Each treatment option was scored for its performance levels against the five main criteria and safety sub criteria.[1]

The main criteria and sources of information for informing the performance matrix for each treatment option.

Criterion	Kd	PVd	SVd
Efficacy	PFS HRs in relation to Vd-derived from a network meta-analysis on lenalidomide-refractory patients[4] HR (95% CI)		
	0.80 (0.39–1.73)[4]	0.66 (0.32–1.34)[4]	0.52 (0.23–1.21)[4]
Safety	Percentage of patients experiencing each Grade 3+ adverse event at RCTs most recent cut-off date[5,6]		
Peripheral neuropathy	1.3%	8.3%	4.6%
Diarrhoea	3.9%	7.9%	6.7%
Nausea	1.9%	0.4%	7.7%
Fatigue	6.7%	9.7%	13.3%
Anaemia	16.4%	15.1%	16.4%
Thrombocytopenia	8.9%	28.1%	40.5%
Acquisition cost	Annualised cost of therapy based on ex-factory prices after mandatory reductions, and including wastage (Italian Official Journal, Farmadati).		
	142,559 EUR	147,560 EUR	116,628 EUR
Route of administration	Combined route of administration of the molecules in the doublet and/or triplet combination[4,6]		
	Oral + IV	Oral + SC	Oral + SC
Organisational impact[1]	Posology schedule, variation, and setting (home/hospital)		
	Posology with changing dosage across treatment cycles, to be administered in hospital setting	Posology with changing frequency of administration across treatment cycles, to be administered at home	Posology with constant frequency of administration across treatment cycles, to be administered at home

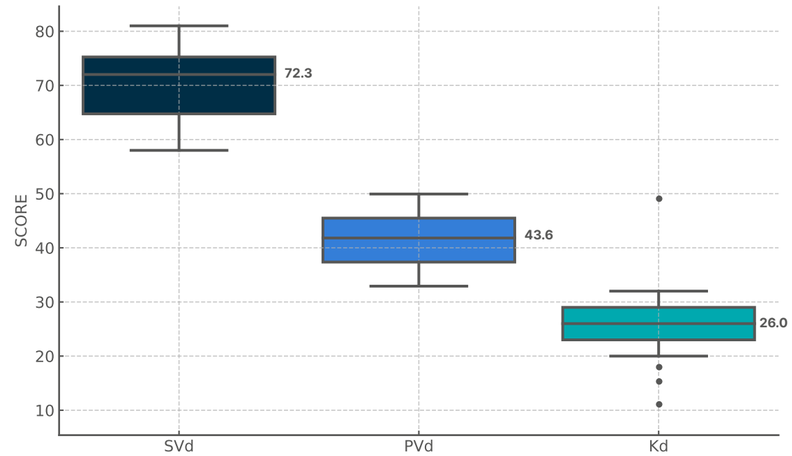
DISTRIBUTION OF AGGREGATE SCORES OF ALTERNATIVES[2]

Based on the group's elicited preferences, SVd was ranked as the most valuable therapy with a global score of 72, followed by PVd (44) and Kd (26).

100% of participants ranked SVd first

100% of clinicians had preferences compatible with the ranking of SVd>PVd>Kd

Distribution of aggregate scores of alternatives.



Based on 24 stakeholders' preferences. Median aggregate scores are reported beside each box.

CONCLUSION

The study identified key decision criteria and their relevance for assessing second-line therapeutic options for lenalidomide-refractory MM post DRd from an Italian multi-stakeholder perspective.[1]

SVd emerged as a preferred alternative over PVd and Kd for patients who relapse after first-line DRd and are ineligible for autologous stem cell transplantation.[1]

The results provide new insights for physicians to support treatment decision-making.