PA-480

BasecaMMp: An oBservational retrospective Analysis of treatment patternS and Effectiveness of standard of CAre for Multiple Myeloma patients exposed to lenalidomide and a Proteasome inhibitor

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Objectives

This analysis explored real-world characteristics and clinical outcomes of patients with RRMM with 1-3 prior lines of therapy (LOTs) and previously treated with LEN and a PI from a large dataset in Germany

Conclusions

- This study supports the findings from prior research on the outcomes of LEN-refractory patients (Yong et al, 2025[4]), whilst focusing on real-world patients as opposed to those treated in a clinical trial setting
- There is no clear standard of care for patients post-LEN and a PI
- The median PFS was approximately 1 year, underscoring the poor outcomes and the unmet need for more effective therapies in this patient population. It should also be noted that there is a risk that PFS in the TM MM dataset is overestimated due to the missing progression data
- Further research is needed to optimize treatment strategies for this patient population as there is no clear standard of care for patients with RRMM post-LEN and a PI with the most used regimen only being prescribed to <20% of patients

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References: 1. Joseph NS, et al. Blood Cancer J. 2024;14:159. **2.** Dimopoulos MA, et al. Nat Rev Clin Oncol 2025;22:680-700. **3.** Therapy Monitor Multiple Myeloma German database. **4**. Yong K, et al. Eur J Cancer 2025;215:115157.

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Disclosures: **MK** reports honoraria from AbbVie, Bristol Myers Squibb, GSK, Janssen, Novartis, Pfizer, Sanofi, Stemline, and Takeda and consulting roles with AbbVie, Bristol Myers Squibb, GSK, Janssen, Novartis, Pfizer, Sanofi, Stemline, and Takeda. **EZ** and **KM** report employment at Cytel at time of project, whose work in this study was funded by Pfizer. **MR** reports employment with TriNetX. **JF**, **OA**, **DH**, and **GN** report employment and stock ownership at Pfizer. **ST** reports consultant/advisor roles to Amgen, BMS, GSK, Johnson & Johnson, Pfizer, Sanofi, Kyowa-Kirin, Menarini-Stemline, Oncopeptides and Takeda.

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Background

- Most patients with relapsed or refractory multiple myeloma (RRMM) have been previously treated with combination therapies including lenalidomide (LEN) and proteasome inhibitors (PIs) in the front-line setting[1,2]
- There is no clear standard of care for patients with RRMM following treatment with LEN and a PI[2]
- Thus, there is a need to understand treatment patterns and clinical outcomes in real-world settings to optimize treatment strategies for this patient population

Methods

- We analysed data from the Therapy Monitor Multiple Myeloma (TM MM) (Germany) electronic health record database. Patients who had received prior LEN and a PI with 1-3 prior LOTs were included if they initiated their next therapy (index therapy) between May 2016 and December 2023
- To align with most ongoing randomized-controlled trials (RCTs) in this population, patients with an ECOG performance status >2 were excluded, among other criteria. Patient characteristics, number of prior LOTs, and treatment regimens were analyzed
- Kaplan-Meier curves were calculated for progression-free survival (PFS) and overall survival (OS). In the dataset, biochemical progression was not available; therefore, PFS was defined as time from index to death or start of a new LOT
- Analyses were also undertaken for the subpopulation of patients who were refractory to LEN

Results

PATIENTS AND PRIOR TREATMENT

- A total of 1834 patients were included in this analysis and baseline characteristics are summarized in **Table 1**. In summary for the full basecaMMp population[3]:
  - Median age was 73 years
  - Patients had previously received a median of 2 prior LOTs
  - Approximately one third of patients (30%) were double refractory with nearly half (48%) refractory to LEN and one third (36%) refractory to a PI
- **Table 1** also presents the baseline characteristics for the LEN refractory population

Table 1. Demographics and baseline characteristics

	Full basecaMMp population N=1834	LEN-refractory population n=874
Age, median (min-max), years	73 (22-96)	73 (29-96)
Prior LOT, median (min-max)	2 (1-3)	3 (1-3)
Prior LOTs, n (%)		
1L	370 (20.17)	48 (5.49)
2L	1280 (69.79)	714 (81.69)
3L	184 (10.03)	112 (12.81)
Prior therapy, n (%)		
LEN	1834 (100)	874 (100)
Anti-CD38 mAb	78 (4.25)	25 (2.86)
Proteasome inhibitor	1834 (100)	874 (100)
Selinexor	0	0
Exposure status, n (%)		
Double-class[a]	1834 (100)	874 (100)
Triple-class[b]	78 (4.25)	25 (2.86)
Quad-class[c]	30 (1.64)	8 (0.92)
Penta-drug[d]	0	0
Refractory status, n (%)		
Lenalidomide	874 (47.66)	874 (100)
Anti-CD38 mAb	0	0
Proteasome inhibitor	668 (36.42)	556 (63.62)
Double-class[a]	557 (30.37)	556 (63.62)
Triple-class[b]	0	0
Penta-drug[d]	0	0
Cytogenetic risk, n (%)		
Standard	316 (17.23)	93 (10.64)
High[e]	208 (11.34)	83 (9.50)
Unknown	1310 (71.43)	698 (79.86)
ECOG PS, n (%)		
0	193 (10.52)	80 (9.15)
1	850 (46.35)	391 (44.74)
2	791 (43.13)	403 (46.11)
ISS/R-ISS, n (%)		
I	42 (2.29)	7 (0.80)
II	968 (52.78)	542 (62.01)
III	567 (30.92)	239 (27.35)
Unknown	257 (14.01)	86 (9.84)

Note: refractoriness is based on documentation of relapsed/refractory status of entire line if patient has progressed to the next. (ie, LEN-refractory = refractory to a prior line where lenalidomide was used as part of any therapeutic measure).
[a] Double-class refers to ≥2 of the following classes: Proteasome inhibitor, Immunomodulatory drug and anti-CD38 antibody; [b] Triple-class refers to ≥1 proteasome inhibitor, ≥1 immunomodulatory drug, and ≥1 anti-CD38 antibody; [c] Quad-class refers to ≥2 proteasome inhibitor, ≥1 immunomodulatory drug, and ≥1 anti-CD38 antibody, or ≥1 proteasome inhibitor, ≥2 immunomodulatory drug, and ≥1 anti-CD38 antibody; [d] Penta-drug refers to ≥2 proteasome inhibitors, ≥2 immunomodulatory drugs and ≥1 anti-CD38 antibody; [e] Includes t(4;14), t(14;16), and del(17p) chromosomal abnormalities.
ECOG PS=Eastern Cooperative Oncology Group performance status; ISS=International Staging System; LEN=lenalidomide; LOT=line of therapy; mAb=monoclonal antibody; R-ISS=Revised ISS

INDEX TREATMENTS

- Index treatment regimens (first treatment after patient had been exposed to LEN and a PI within 1-3 LOTs) were heterogenous (**Table 2**)
- The most common regimen in each source was used by <25% of patients
  - Full basecaMMp population: daratumumab + bortezomib + dexamethasone (19.85%)
  - LEN-refractory population: daratumumab + bortezomib + dexamethasone (24.83%)
- The 3 most common regimens were collectively used by <50% of patients in the full population and <56% in the LEN-refractory subpopulation

Table 2. Index treatment regimens

Top 5 most used regimens at index, n (%)

	Full basecaMMp population N=1834		LEN-refractory population n=874	
1	DVd	364 (19.85)	DVd	217 (24.83)
2	Pd	270 (14.72)	Pd	161 (18.42)
3	D mono	202 (11.01)	Kd	108 (12.36)
4	DRd	181 (9.87)	DRd	70 (8.01)
5	Kd	150 (8.18)	D mono	52 (5.95)

Top 5 most used regimens after index (subsequent therapy), n (%)

	Full basecaMMp population n=1063		LEN refractory population n=593	
1	D mono	131 (12.32)	Pd	72 (12.14)
2	Pd	126 (11.85)	D mono	71 (11.97)
3	IxaRd	113 (10.63)	IxaRd	71 (11.97)
4	EPd	91 (8.56)	EPd	53 (8.94)
5	ERd	88 (8.28)	IsaPd	41 (6.91)

Pd=pomalidomide, dexamethasone; EPd=elotuzumab, pomalidomide, dexamethasone; DVd=daratumumab, bortezomib, dexamethasone; Kd=carfilzomib, dexamethasone; ERd=elotuzumab, lenalidomide, dexamethasone; IxaRd=ixazomib, lenalidomide and dexamethasone; DRd= daratumumab, lenalidomide and dexamethasone; D mono=daratumumab monotherapy; IsaPd=isatuximab, pomailomide and dexamethasone

EFFICACY

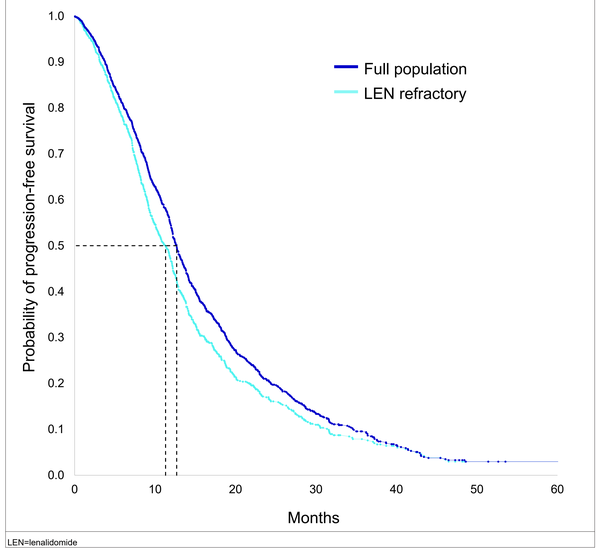
- Median (95% CI) PFS was 12.68 (12.22 - 13.14) and 11.30 (10.28 - 12.09) months for the full basecaMMp population and the LEN refractory population, respectively. Median OS was 37.09 (34.17 - 40.71) and 34.33 (31.11 - 41.03) months

Table 3. Survival outcomes

	Full basecaMMp population n=1063	LEN-refractory population n=593
PFS, median (95% CI), months	12.68 (12.22 - 13.14)	11.30 (10.28 - 12.09)
OS, median (95% CI), months	37.09 (34.17 - 40.71)	34.33 (31.11 - 41.03)

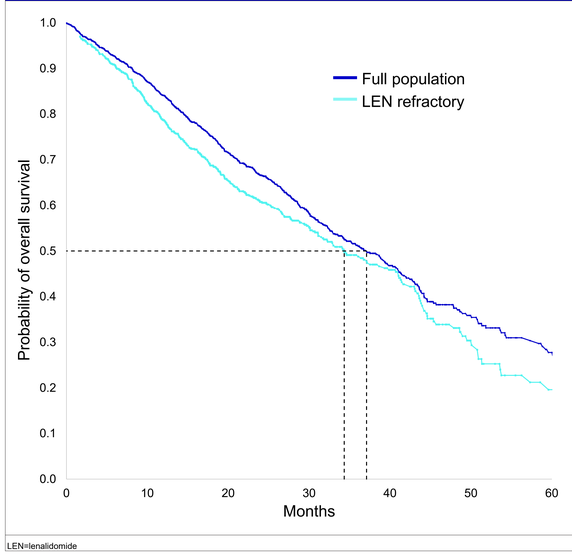
LEN=lenalidomide; OS=overall survival; PFS=progression-free survival

Figure 1. Progression-free survival



LEN=lenalidomide

Figure 2. Overall survival



LEN=lenalidomide