The 6th World Congress on CONTROVERSIES IN MULTIPLE MYELOMA (COMy)

Patient preferences, treatment satisfaction, and quality of life in newly diagnosed and relapsed/refractory multiple myeloma patients receiving injectable-containing or fully oral therapies: the EASEMENT study

Neil Rabin,[1] Rami Kotb,[2] Athanasios Zomas,[3] Alonso Fernandez-Nistal,[3] Rocco D'Ambrosio,[3] Nawal Bent-Ennakhil,[3] Montserrat Roset,[4] Ombretta Annibali[5]

[1]University College London Hospitals, London, and North Middlesex University Hospital, UK; [2]CancerCare Manitoba, Winnipeg, Manitoba, Canada; [3]Takeda Pharmaceuticals International AG, Zurich, Switzerland; [4]IQVIA, Barcelona, Spain; [5]Università Campus Bio-Medico di Roma, Rome, Italy

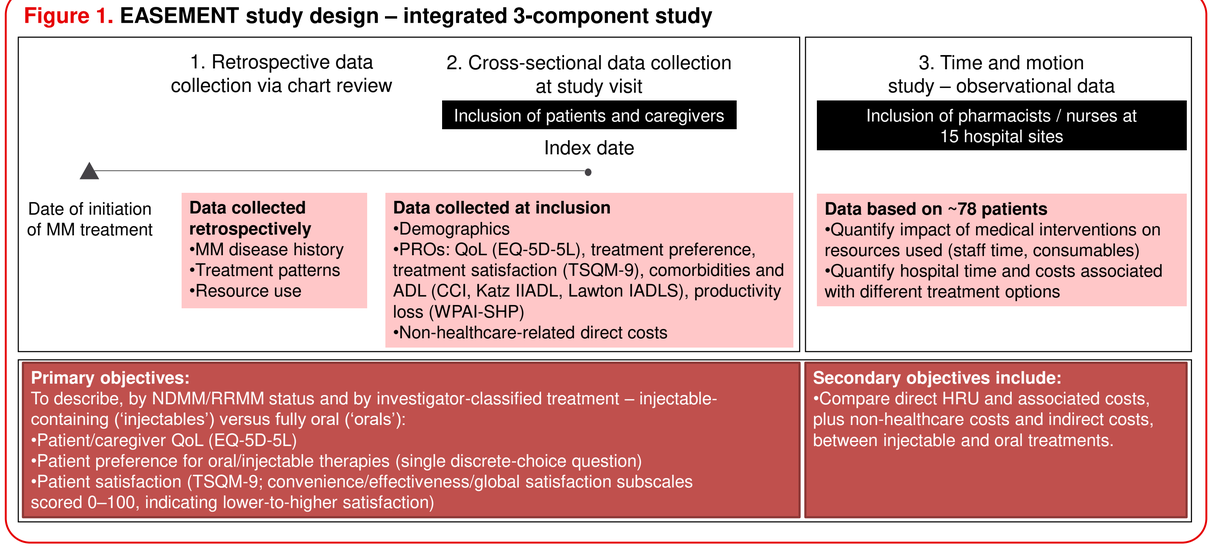
INTRODUCTION AND METHODS

- As MM therapies advance, with the introduction of multiple novel agents and regimens for NDMM and RRMM,[1] understanding patients', caregivers', and physicians' perspectives on, and satisfaction with, available treatment options, and the impact of these options on QoL, is important.
  - These factors may affect treatment decision-making.

EASEMENT

- EASEMENT is a real-world, multicenter, observational, cross-sectional study conducted in 19 sites in Canada (n=2), Italy (n=3), and the UK (n=14), using retrospective chart reviews and surveys (**Figure 1**).
  - EASEMENT enrolled MM patients (excluding clinical trial participants) for whom clinical history was available since initiation of MM treatment (for chart review component) and who had received ≥1 cycle of their current line of therapy at the date of inclusion (index date).

Figure 1. EASEMENT study design – integrated 3-component study



RESULTS

Patient characteristics and disposition

- A total of 399 patients (192 NDMM, 206 RRMM, 1 missing) were enrolled (**Table 1**) from October 2018 to March 2020.
- Characteristics appeared generally similar between NDMM and RRMM patients.
  - The only significant differences were that NDMM patients included a higher proportion of non-Caucasian patients, had a lower mean CCI, and – as would be expected – a shorter median time since diagnosis than RRMM patients.

Table 1. Patient sociodemographic and disease characteristics at index date

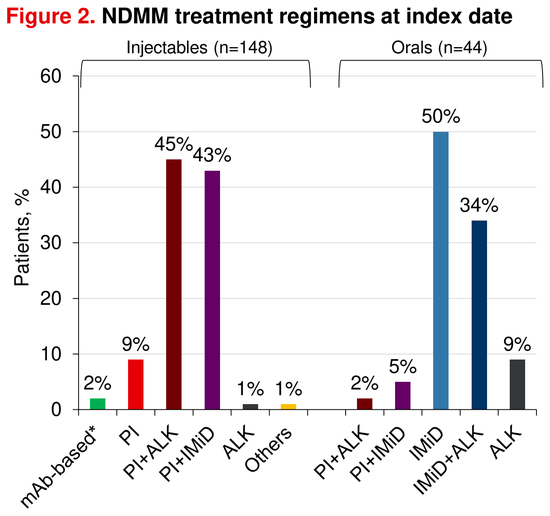
Characteristic	All patients (N=399)*	NDMM patients (n=192)*	RRMM patients (n=206)*
Median age (interquartile range), years	71 (64–76)	71 (63–76)	72.5 (66–76)
Sex: male/female, %	61 / 39	59 / 41	63 / 37
Race: Caucasian / Asian / Black / Other, %	89 / 1 / 3 / 7	**83 / 2 / 5 / 10†**	**95 / <1 / <1 / 4†**
Marital status: single / married / living with partner / separated or divorced / widowed / missing, %	9 / 67 / 3 / 7 / 12 / 2	9 / 69 / 2 / 6 / 14 / 0	10 / 66 / 4 / 7 / 10 / 4
Living status: alone / with spouse or partner / other or missing, %	20 / 68 / 12	18 / 68 / 14	22 / 67 / 11
Living with caregiver: yes / no / missing, %	51 / 41 / 8	54 / 38 / 9	49 / 44 / 7
Working status: working‡ / retired / unemployed / on sick leave or unable to work / homemaker / missing, %	11 / 74 / 2 / 9 / 1 / 3	15 / 70 / 3 / 10 / 0 / 2	8 / 78 / 1 / 7 / 2 / 4
ECOG PS: 0 / 1 / ≥2 / missing, %	28 / 47 / 24 / 1	32 / 44 / 23 / 0	24 / 50 / 25 / 2
Mean (SD) CCI score	0.54 (0.92)	**0.43 (0.80)#**	**0.65 (1.01)#**
Mean (SD) Katz IIADL score	5.51 (1.16)	5.59 (1.01)	5.45 (1.26)
Mean (SD) Lawton IADLS score	6.60 (1.95)	6.79 (1.75)	6.42 (2.11)
Median time since MM diagnosis (range), months	30.6 (2.1–326.1)	**11.3 (2.1–326.1)§**	**61.2 (5.8–281.9)§**
Receiving injectable / oral treatment, %	59 / 41	77 / 23	42 / 58

*Disease status missing for 1 patient. †p=0.0008, NDMM vs RRMM. ‡Includes full-time/part-time working and self-employment. #p=0.0268, NDMM vs RRMM. §p<0.0001, NDMM vs RRMM.

Treatment patterns and preferences

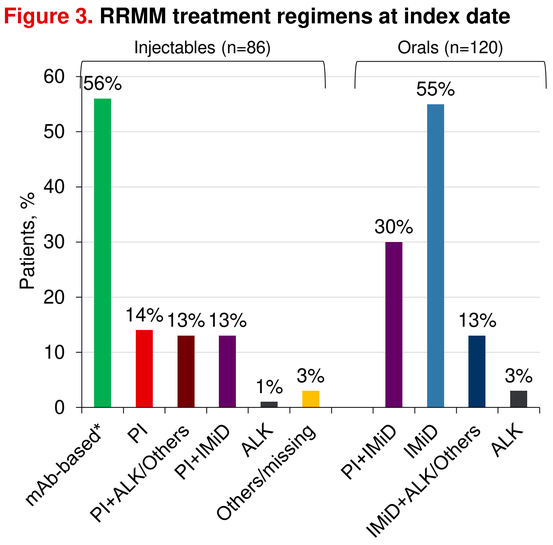
- Of the 192 NDMM patients, 77% were receiving injectables and 23% orals (**Figure 2**).
- Of the 206 RRMM patients, 42% were receiving injectables and 58% orals (**Figure 3**).

Figure 2. NDMM treatment regimens at index date



mAb-based=any regimen containing a mAb; remaining regimen categories include the agents shown ± steroid. *1% mAb+PI, 1% mAb+IMiD.

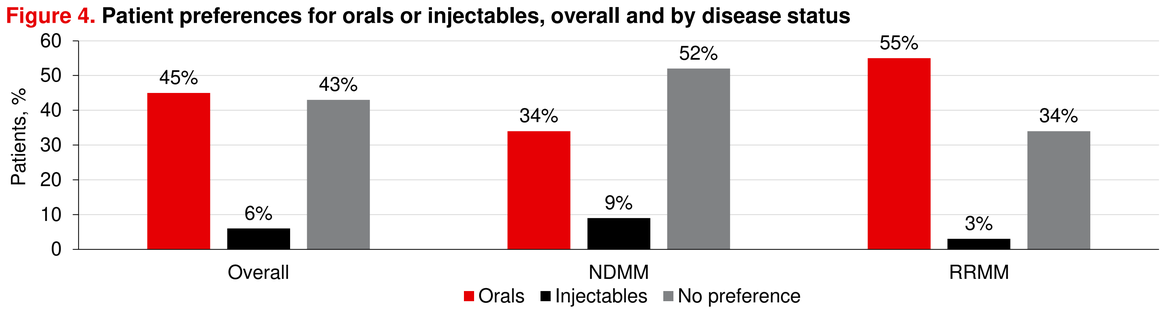
Figure 3. RRMM treatment regimens at index date



mAb-based=any regimen containing a mAb; remaining regimen categories include the agents shown ± steroid. *15% mAb, 21% mAb+PI, 20% mAb+IMiD.

- Patient treatment preferences (**Figure 4**) were assessed using one unique discrete-choice question:
  MM treatment can include only oral drugs or also include some injectable drugs. Which type of administration would you prefer for MM treatment?
  a. Treatment pattern including only oral drugs ('Orals')
  b. Treatment pattern including only injectable drugs ('Injectables')
  c. I do not have a clear preference based on type of administration ('No preference')
- Overall, and among NDMM and RRMM patients, orals were more frequently preferred than injectables.

Figure 4. Patient preferences for orals or injectables, overall and by disease status



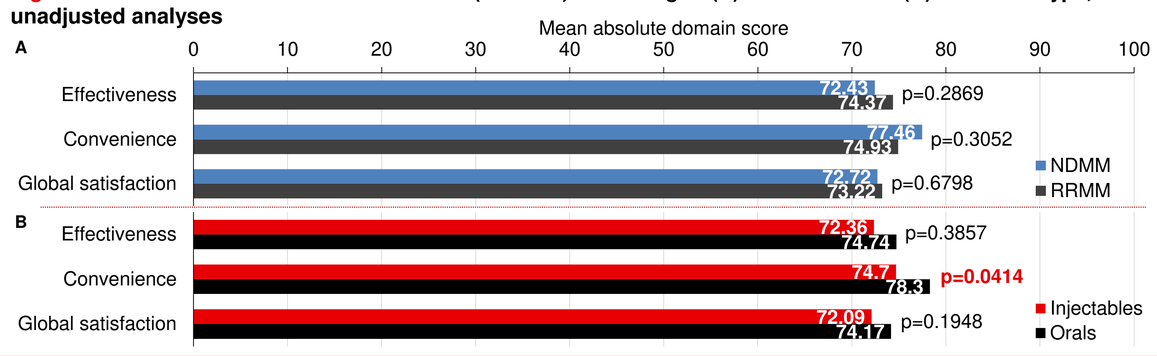
Response missing for 24/399 (6%) patients, including 10/234 (5%) NDMM patients and 14/165 (7%) RRMM patients.

RESULTS (CONTINUED)

Treatment satisfaction

- There were no differences in the three domains of treatment satisfaction score on TSQM-9 between NDMM and RRMM patients (**Figure 5A**).
- With injectables versus orals (**Figure 5B**), mean treatment convenience score was significantly lower (unadjusted analysis); mean treatment effectiveness and global satisfaction scores did not differ.
- On univariant analysis:
  - The only demographic parameter with a significant association with any of the TSQM-9 domains was sex – mean global satisfaction score was higher in male vs female patients (74.3 vs 70.6, p=0.0422)
  - Convenience score was significantly associated with Katz IIADL (p=0.0410) and Lawton IADLS (p<0.001) scores.
- On multivariant analysis of TSQM-9 domain scores and patient and treatment characteristics, the only significant association was between convenience score and Lawton IADLS score (p<0.0001).

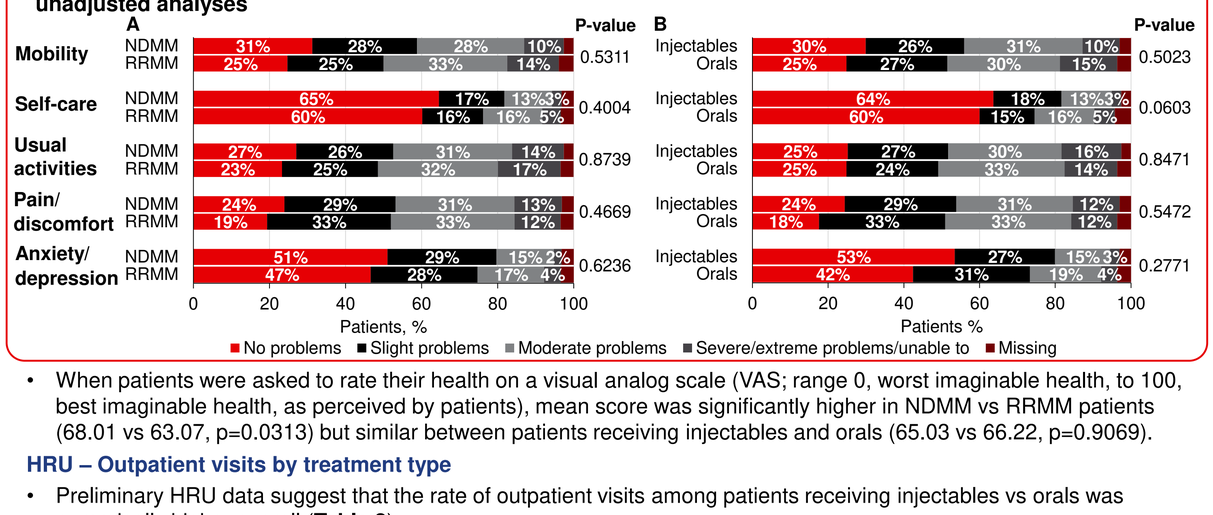
Figure 5. Mean treatment satisfaction scores (TSQM-9) according to (A) MM status and (B) treatment type, unadjusted analyses



QoL

- The EQ-5D-5L QoL dimensions of mobility, self-care, usual activities, pain/discomfort, and anxiety/depression were not significantly different between NDMM and RRMM patients (**Figure 6A**) or between patients receiving injectables or orals (**Figure 6B**) (p-values for overall comparisons of responses between patient groups).

Figure 6. Patient-reported EQ-5D-5L QoL dimensions according to (A) MM status and (B) treatment type, unadjusted analyses



- When patients were asked to rate their health on a visual analog scale (VAS; range 0, worst imaginable health, to 100, best imaginable health, as perceived by patients), mean score was significantly higher in NDMM vs RRMM patients (68.01 vs 63.07, p=0.0313) but similar between patients receiving injectables and orals (65.03 vs 66.22, p=0.9069).

HRU – Outpatient visits by treatment type

- Preliminary HRU data suggest that the rate of outpatient visits among patients receiving injectables vs orals was numerically higher overall (**Table 2**).
- The proportions of visits to oncologists, hematologists, and nurses, and of visits made for systemic treatment administration or refill medication, differed significantly between groups.
- Outpatient visits were mainly face-to-face for both groups; however, this finding would likely be different now in the context of the COVID-19 pandemic.

Table 2. Outpatient visits related to MM and its complications (during the last 6 months or since relapsed/refractory disease) according to route of administration

Outpatient visits	Injectables (n=234)	Orals (n=165)
Total number of visits, n (npp)	609 (2.6)	374 (2.3)
Visits to healthcare professional, % of visits (npp)		
Oncologist	**6.2% (0.16)***	**2.9% (0.07)***
Hematologist	**44.8% (1.17)†**	**54.3% (1.23)†**
Nurse	**38.1% (0.99)‡**	**31.6% (0.72)‡**
General practitioner	0.2% (0.004)	0
Urologist	0.7% (0.02)	1.6% (0.04)
Neurologist	0.5% (0.01)	0
Other	9.5% (0.25)	9.6% (0.22)
Type of visit, % of visits (npp)		
Telephone call	7.4% (0.19)	8.3% (0.19)
Face-to-face main visit	78.7% (2.05)	75.4% (1.71)
Face-to-face ancillary visit	12.5% (0.32)	13.6% (0.31)
Urgent outpatient	1.5% (0.04)	2.7% (0.06)
Reason for visit, % of visits (npp)		
Systemic treatment administration	**37.8% (0.98)#**	**26.7% (0.61)#**
Refill medication	**9.5% (0.25)#**	**19.0% (0.43)#**
Recommended by another physician	4.3% (0.11)	5.1% (0.12)
Occurrence of adverse event	4.6% (0.12)	7.0% (0.16)
Other	43.8% (1.14)	42.2% (0.96)

npp=number per patient. *p=0.02105; †p=0.004; ‡p=0.03748; #p<0.001.

CONCLUSIONS

- EASEMENT data indicate patients perceived greater convenience and preference for orals versus injectables.
  - Patients receiving orals versus injectables required a numerically lower rate of outpatient visits.
- Orals are useful options for patients who cannot, or who prefer not to, travel to clinics, especially in the context of the COVID-19 pandemic.
- The data also indicate differential use of injectable vs oral therapies in NDMM and RRMM patients.
  - These differences may be driven by common treatment options in the participating countries.

REFERENCE

1. Goldschmidt H, et al. Ann Hematol 2019;98:1–18.

ABBREVIATIONS

ADL, activities of daily living; ALK, alkylating agent; CCI, Charlson Comorbidity Index; ECOG PS, Eastern Cooperative Oncology Group performance status; EQ-5D-5L, EuroQol 5-dimension 5-level questionnaire; HRU, healthcare resource utilization; IMiD, immunomodulatory drug; Katz IIADL, Katz Index of Independence in Activities of Daily Living; Lawton IADLS, Lawton Instrumental Activities of Daily Living Scale; mAb, monoclonal antibody; MM, multiple myeloma; NDMM, newly diagnosed multiple myeloma; npp, number per patient; QoL, quality of life; PI, proteasome inhibitor; PRO, patient-reported outcomes; RRMM, relapsed/refractory multiple myeloma; SD, standard deviation; TSQM-9, Treatment Satisfaction Questionnaire for Medication, 9 items; VAS, visual analog scale; WPAI-SHP, the Work Productivity and Activity Impairment – Specific Health Problem questionnaire.

DISCLOSURES AND ACKNOWLEDGEMENTS

This study was funded by Takeda Pharmaceuticals International AG. **NR** discloses advisory boards for Takeda, Celgene, Amgen, Karyopharm; travel bursaries from Takeda, Celgene, Janssen; speakers bureaus for Celgene, Janssen. Co-author disclosures are listed in the mobile-friendly version of this poster, which is available by scanning the QR code below.

The authors would like to thank all patients/caregivers and their families, and all investigators for their valuable contributions to this study. The authors also acknowledge Steve Hill, PhD, of FireKite, an Ashfield company, part of UDG Healthcare plc, for writing assistance during the development of this poster, which was funded by Takeda Pharmaceuticals International AG, and complied with Good Publication Practice 3 ethical guidelines (Battisti et al., Ann Intern Med 2015;163:461–4).

Electronic poster presentation at the 6th World Congress on Controversies in Multiple Myeloma (COMy 2020) Virtual Meeting, October 3–4, 2020. For questions or comments please contact Dr Neil Rabin: n.rabin@nhs.net