

A Qualitative Study of Patients’ Preferences for the Treatment of Relapsed or Refractory Multiple Myeloma in the United States, United Kingdom, France and Germany

Poster No. MM-200

Introduction

- Multiple myeloma (MM) is an incurable hematological cancer, and despite treatments improving survival rates, the majority of surviving patients with MM will eventually relapse.¹
- To date, there is limited research into patient preferences for treating relapsed/refractory multiple myeloma (RRMM). A targeted literature review identified 7 papers assessing patient preferences for MM treatment, but only 2 of these studies specifically looked at preferences in patients with RRMM.^{2,3}
- As the treatment landscape for RRMM evolves, it is becoming increasingly important to understand how treatments differ in terms of benefits, risks and convenience as these factors may influence patients' preferences for treatment.
- Understanding these preferences can aid shared decision-making between patients and physicians.

Objective

To identify patient-relevant attributes among patients with RRMM who have been exposed to ≥2 prior-lines of therapy (LOT), and to understand patients' experiences with RRMM and their preferences related to treatment.

Methods

- This is the qualitative interview phase of a 2-part study designed to better understand the experiences and treatment preferences of patients with RRMM.
- Eligible patients included adults with RRMM who provided informed consent and were residents of the US, UK, France, or Germany and had a self-reported treatment history meeting one of 2 criteria:
 - Exposed to ≥2 prior LOTs, including both lenalidomide and a proteasome inhibitor.
 - Exposed to ≥3 prior LOTs, including ≥1 of the following: a proteasome inhibitor, an immunomodulatory agent, or an anti-CD38 monoclonal antibody.
- Interview questions were informed by a literature review that extracted potential treatment attributes from prior studies and gathered clinical data of existing treatments for RRMM.
- Sixty-minute, semi-structured interviews were conducted and included:
 - Discussion of patients' experiences with MM and treatments.
 - Discussion and ranking of benefits desired from treatment.
 - Discussion and ranking of symptoms prior to treatment and symptoms/side effects after treatment that patients would like to avoid.
 - Discussion of non-clinical features, such as frequency and mode of administration.

Results

Table 1. Clinical and sociodemographic characteristics				
	N=19			
Average years of age at time of consent to interview (range)	56 (41–75)			
Sex, n (%)	15 (79)			
Female	15 (79)			
Remission status, n (%)	8 (42)			
Yes	2L	3L	4L	5L+
	3 (16)	4 (21)	5 (26)	7 (37)
Prior lines of therapy, n (%)	8 (42)			
Most common treatments,* n (%)				
	19 (100)	18 (95)	17 (89)	13 (68)
	Lenalidomide	Bortezomib	Dexamethasone	Daratumumab
Average number of MM-related medical visits in the last 3 months	5			
Education level, n (%)				
	6 (32)	3 (16)	1 (5)	9 (47)
	Postgraduate degree†	College degree	Some college	High school
Employment status, n (%)				
	3 (16)	4 (21)	5 (26)	6 (32)
	Employed full-time	Employed part-time	Retired	Unable to work due to disability
	On sick leave			1 (5)

*Includes past and current treatments. †Includes masters, MD, PhD, PharmD. L, line of therapy; MM, multiple myeloma.

Results

Sociodemographics and clinical characteristics

- A total of 19 patients participated in this study (**Table 1**) between the dates of Jan 25, 2021 and May 5, 2021.
- Mean (standard deviation) age was 56 years (9.6), and 79% of patients (n=15) were female. Most (84%; n=16) of patients had ≥3 prior LOTs.

Symptoms before treatment and impact of RRMM

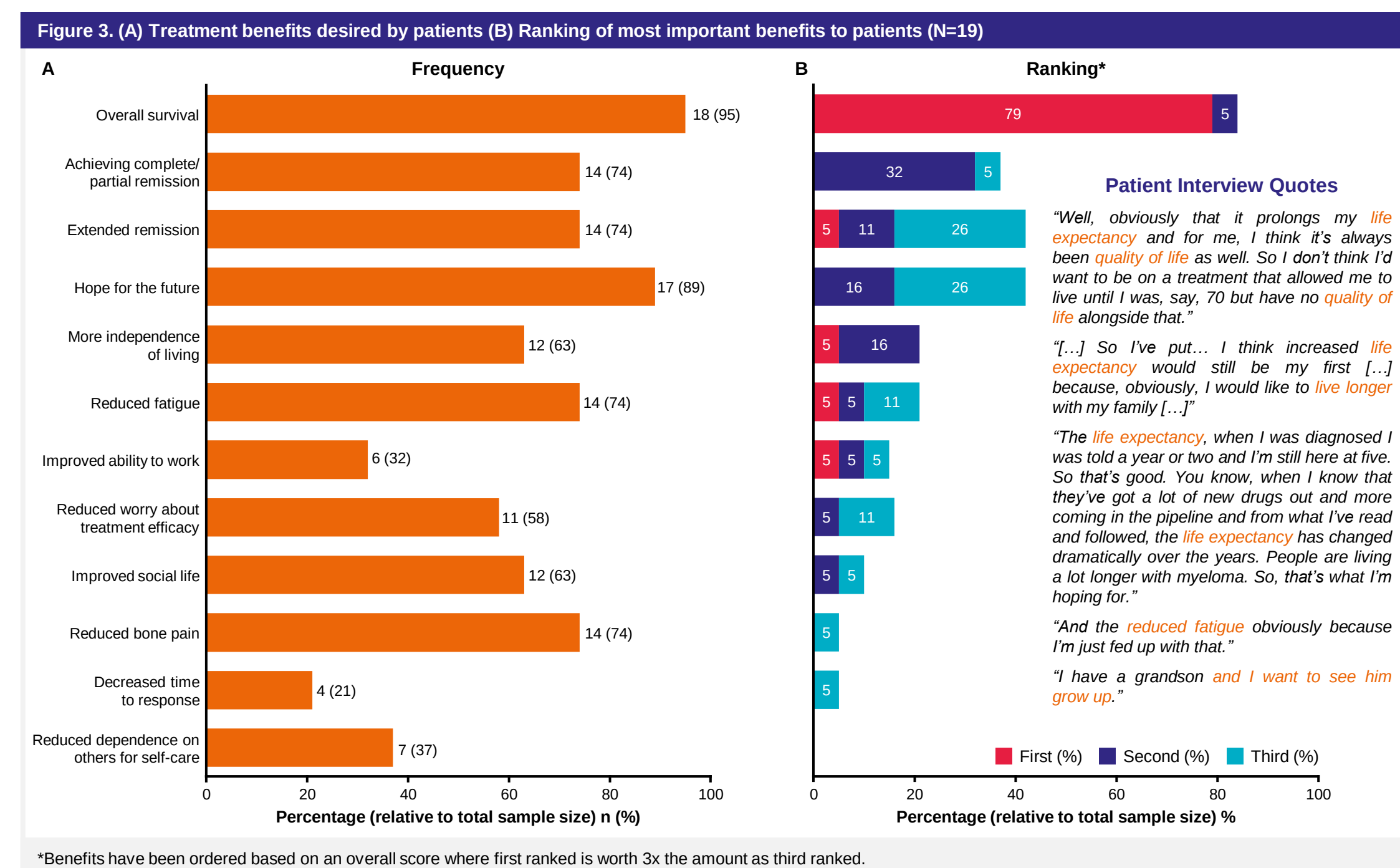
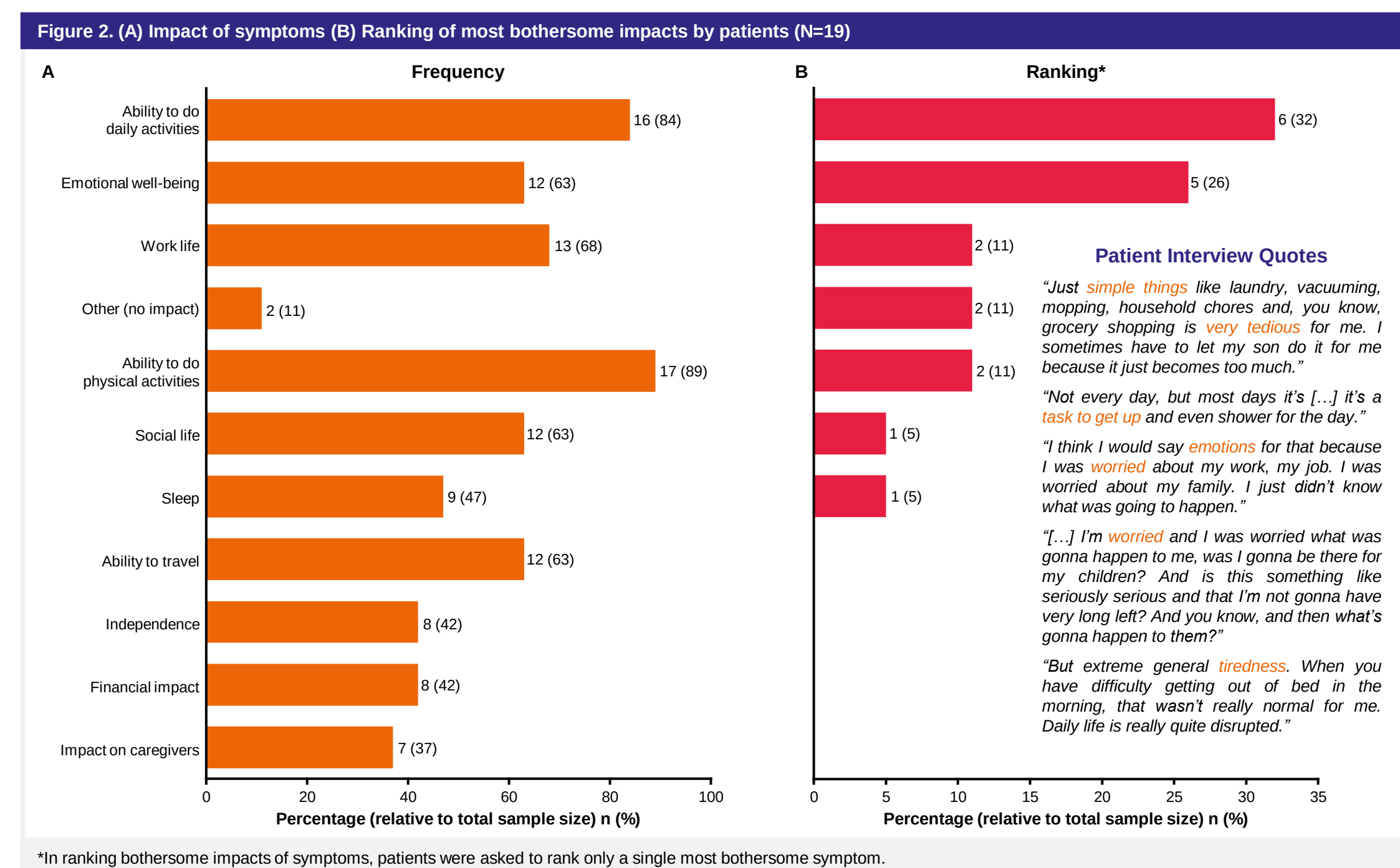
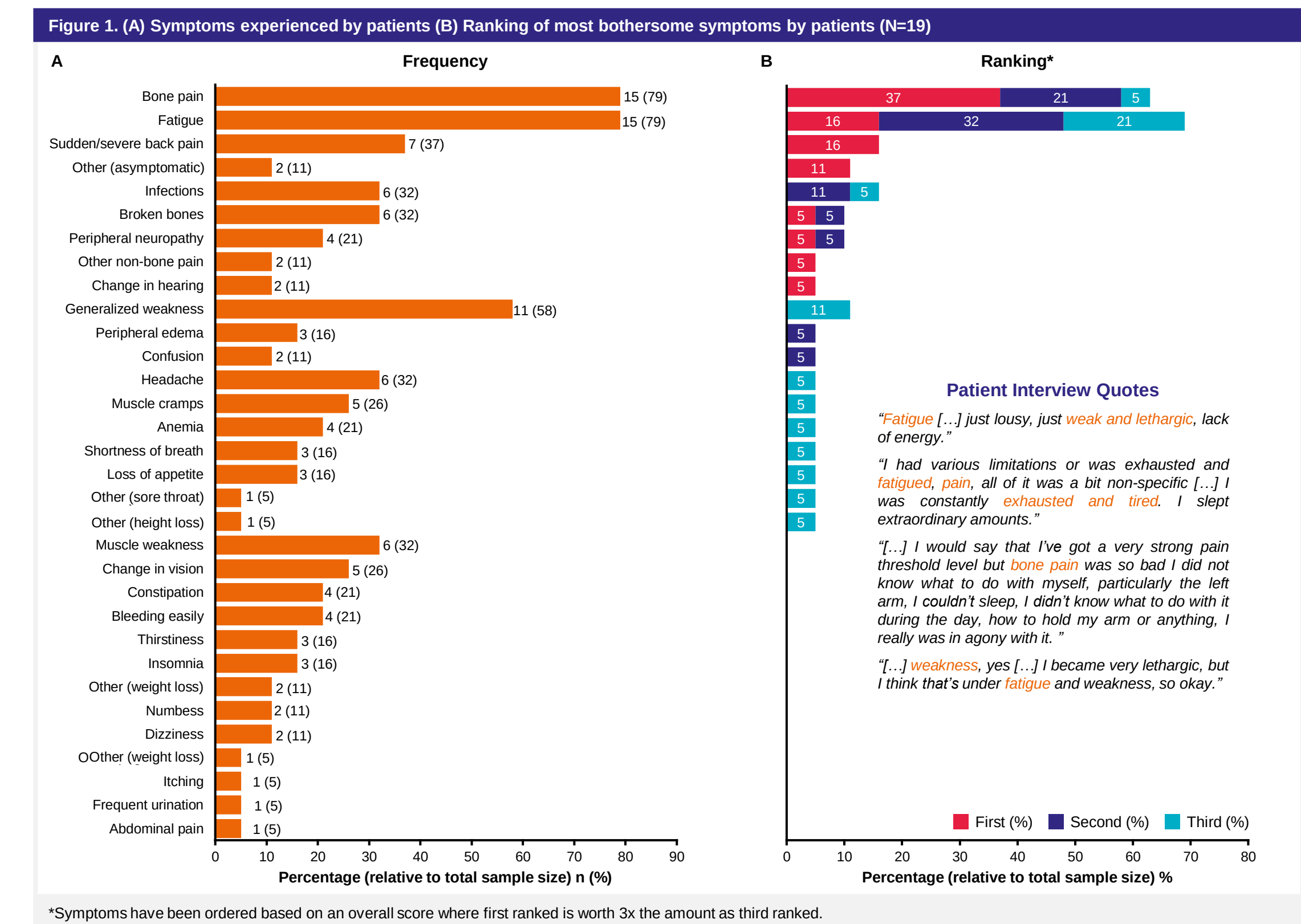
- Patients experienced a wide range of disease symptoms (**Figure 1A**) that impacted their lives in a number of ways; the highest frequency symptoms were bone pain (79%; n=15), fatigue (79%; n=15) and generalized weakness (58%; n=11).
- Based on ranking, bone pain was considered as most bothersome by 37% of patients (n=7) followed by fatigue (16%; n=3 [**Figure 1B**]).
- Disease symptoms often impacted patients' abilities to perform daily activities (84%; n=16 [**Figure 2A**]) and this was also ranked by 32% of patients (n=6) as the most bothersome impact of the disease (**Figure 2B**).

Benefits desired from treatment

- Patients most frequently reported increased overall survival as an important treatment benefit (95%; n=18), followed by hope for the future (89%; n=17), and reduced bone pain (74%; n=14), achieving complete/partial remission (74%; n=14) and extended remission (74%; n=14 [**Figure 3A**]).
- Seventy-nine percent of patients (n=15) ranked overall survival as the most important treatment benefit; 32% of patients (n=6) ranked achieving complete/partial remission as the second most important treatment benefit (**Figure 3B**).

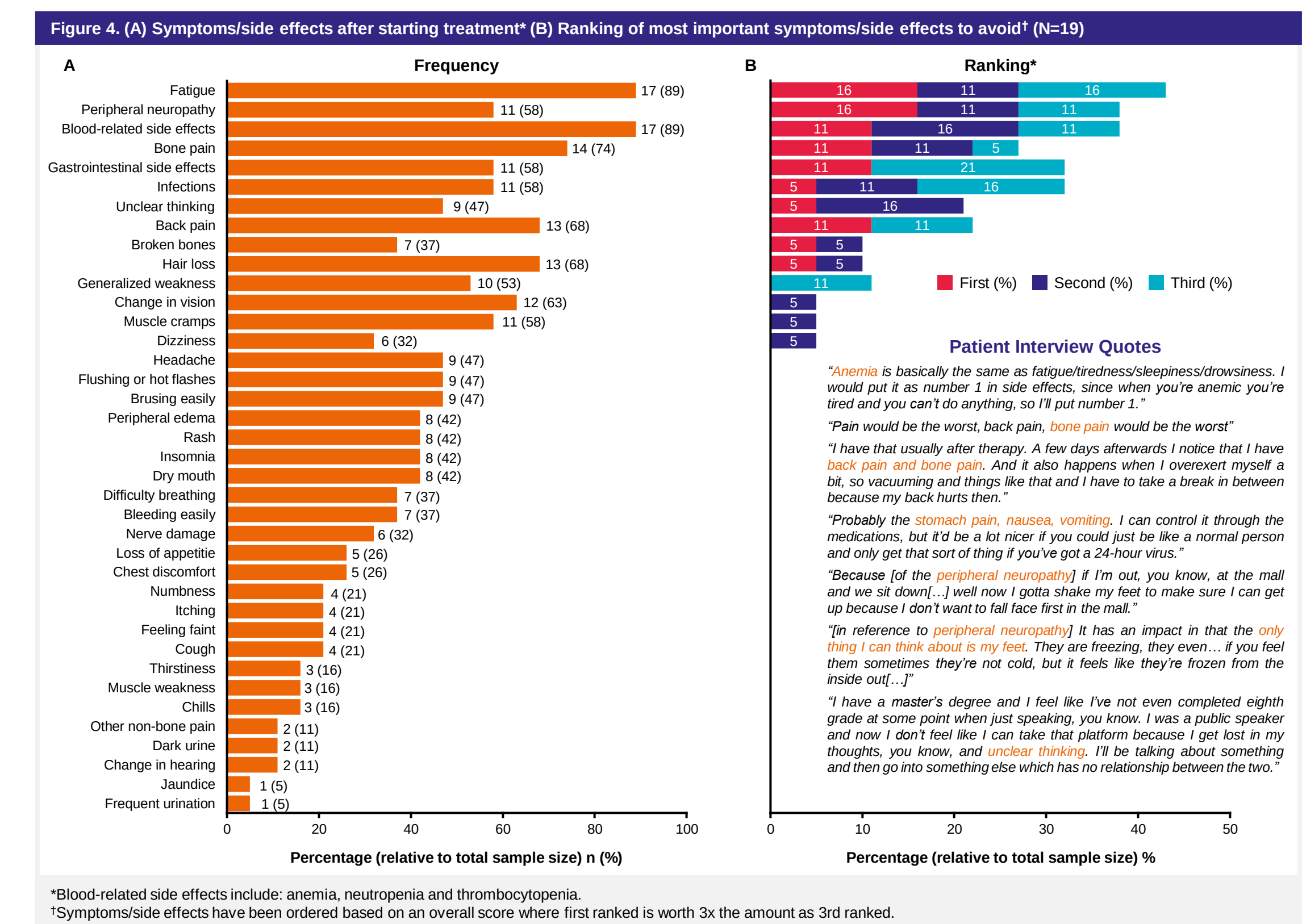
Symptoms / side effects after starting treatment

- Frequent side effects after starting treatment included blood-related side effects (89%; n=17), fatigue (89%; n=17) and bone pain (74%; n=14 [**Figure 4A**]).
- Patients demonstrated heterogeneity in their rankings of side effects; however, the side effects ranked as most important to avoid included fatigue (16%; n=3), peripheral neuropathy (16%; n=3) and blood-related side effects (11%; n=2 [**Figure 4B**]).



Caitlin Thomas^{1*}, Heather Gelhorn², Sarah Mulnick², Rakesh Popat³, Sikander Ailawadhi⁴, David Kleinman⁵, Eleanor McDermott⁶, Boris Gorsh⁷, Sue Perera⁸, Laurie Eliason⁷, Sandhya Sapra⁷, Leah Sansbury⁹, Alicia O'Neill⁹, Prani Paka⁷, Jayne Galinsky¹⁰, Julia Tolley¹¹, Melissa Ross²

¹Patient Centered Research, Evidera, London, United Kingdom; ²Patient-Centered Research, Evidera, Bethesda, Maryland, United States; ³University College London Hospitals NHS Foundation Trust, London, United Kingdom; ⁴Mayo Clinic, Jacksonville, Florida, United States; ⁵University of Rochester Medical Center, Rochester, New York, United States; ⁶GlaxoSmithKline, Stevenage, United Kingdom; ⁷GlaxoSmithKline, Upper Providence, Pennsylvania, United States; ⁸GlaxoSmithKline, London, United Kingdom; ⁹GlaxoSmithKline, Philadelphia, Pennsylvania, United States; ¹⁰Myeloma Patients Europe, Edinburgh, United Kingdom; ¹¹Myeloma Patients Europe, Munich, Germany



- Non-clinical attributes**
- The way in which treatments were administered to patients (i.e., intravenous infusion, orally, etc.) was important to 74% of patients (n=14), and the frequency of treatment administration was important to 79% of patients (n=15).
 - More than half (58%; n=11) of the patients interviewed indicated that they would prefer chimeric antigen receptor T-cell (CAR-T) therapy, given, it is a one-time treatment, over a therapy where medicine needed to be taken on a regular basis. However, patients also expressed concerns over long-term efficacy and side effects; some patients were worried about facing disappointment if they became ineligible during treatment due to their disease progression.
- Patient Interview Quotes**
- "[...] if they were comparable in, you know, how effective and safety, you'd prefer an oral pill [...]"*
- "[...] The oral tablets which I was on for a while, one of my treatments, my third line of treatment, that was kind of convenient as in, you know, you don't have to go and do your hospital visits, you know, you're not just sitting in a chair having an infusion for eight hours or staying overnight for weeks on some of them [...]"*
- "[...] the less you have to take, the more convenient it is."*

Conclusions

- This RRMM qualitative patient preference study is the first, to our knowledge, to include only patients with RRMM who had been exposed to ≥2 prior LOTs. It was also the first qualitative preference study among patients with RRMM conducted across multiple countries.
- Patients in this study experienced a wide range of symptoms prior to treatment, and side effects since starting treatment, that have a significant impact on their quality of life, both physically and emotionally.
- Key symptoms and side effects of concern after starting treatment included fatigue, peripheral neuropathy, blood-related side effects, bone pain, gastrointestinal side effects and infections.
- Patients in this study desired a treatment that prolonged overall survival; however, they expressed that improvement in quality of life and increased ability to plan for the future were also important.
- While treatment administration was important and patients preferred treatments that required infrequent administration, this preference was often dependent on overall efficacy and safety.
- This study identified relevant treatment attributes that will inform a discrete choice experiment to further understand patients' preferences for RRMM treatments.

Acknowledgments

Editorial assistance was provided by Jiah Pearson-Leary, PhD, of Fishawack Indicia Ltd, part of Fishawack Health, and funded by GlaxoSmithKline (212225).

Conflicts of interest

FG, CT, MR, and SM are employees of Evidera, a patient-centered outcome consultancy commissioned by GSK to conduct this research. RP has received consultancy fees from GSK and honoraria from Abbvie, Amgen, GSK, and Janssen. DK has received consultancy fees from GSK and Triphase Accelerator, owns stocks and shares in and advises, Calm Water Therapeutics. AO is an employee of GSK. EM, BG, LE, SS, LL, SP, and PP are employees of GSK and own stocks and shares in GSK.

References

- Kumar SK, Rajkumar SV, Dispenzieri A, et al. Improved survival in multiple myeloma and the impact of novel therapies. *Blood*. 2008;111(5):2516–2520. doi:10.1182/blood-2007-10-116129
- Parsons JA, Greenspan NR, Baker NA, McKillop C, Hicks LK, Chan O. Treatment preferences of patients with relapsed and refractory multiple myeloma: a qualitative study. *BMC Cancer*. 2019;19(1):264. doi:10.1186/s12885-019-5467-x
- Wilke T, Mueller S, Bauer S, et al. Treatment of relapsed refractory multiple myeloma: which new PI-based combination treatments do patients prefer? *Patient Prefer Adherence*. 2018;12:2387-2396. doi:10.2147/PPA.S183187

*Presenting author's email address: caitlin.thomas@evidera.com