ORIGINAL RESEARCH

Patient, Care Partner, and Physician Voices in Treatment Decision-Making for Multiple Myeloma

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Introduction: Treatment decision-making for multiple myeloma (MM) is complex. Individuals involved in decision-making may value treatment attributes differently based on their role as a patient, care partner, or physician. This study describes those attributes, and what is most important by role.

Methods: We conducted a cross-sectional online survey with consenting adult patients with MM, MM care partners, and physicians treating MM. Respondents were recruited from US panels (Inspire and M3 Global Research) between September and December 2022. Survey items were informed by a targeted literature review, qualitative interviews, and a steering committee comprising clinical experts, a patient advocate, patient, and care partner. Descriptive statistics were generated and reported in aggregate.

Results: Email invitations were sent to 8071 Inspire members interested in or posting about MM. Of these, 4427 viewed the invitation, 941 responded, and 156 patients and care partners completed the survey (17% of respondents). For physicians, 5588 were invited via Email by M3 Global Research, with 761 viewing the invitation, 214 accessing the survey link, and 137 completing the survey (64% of respondents). Duration of response, side effects, and patients' quality-of-life (QoL) were the top three treatment attributes selected across the three cohorts; alignment of these attributes was consistent among patients regardless of disease severity. Separately, patients rated QoL and the amount of caregiving needed during/after treatment as the most important factors for future treatment decisions. If more effective MM treatments were offered, care partners were more willing to assume greater family burden (77%) compared to patients (49%), and patients were more accepting of potential serious side effects (50%) than were care partners (34%).

Conclusion: Patients with MM, care partners, and physicians consider and value various treatment decision-making factors. Recognizing and addressing these differences is critical to meeting patients' preferences, needs, and optimizing patient outcomes.

Keywords: Decision-making, treatment choice, cross-sectional survey, multiple myeloma

Introduction

Multiple myeloma (MM) is a rare hematologic cancer, with an estimated incidence of 35,730 in 2023; it accounts for approximately 1.8% of all new cancer cases in 2023.[1] Despite its relatively low incidence, it ranks as the 15th leading cause of cancer-related deaths in the United States (US).[1] Treatment for MM has improved significantly over the years, leading to improved survival rates and quality of life (QoL) for patients. However, there are still several challenges due to the disease's heterogeneity and evolving treatment landscape, making it difficult to establish a definitive standard of care for all patients.[2–4] Several factors need to be considered when choosing an appropriate therapy, including age, disease severity, potential toxicities, responses to previous therapies, and number of previous therapy lines.[5] Despite high initial treatment response rates in patients with newly diagnosed MM, acquired drug resistance remains a significant challenge, resulting in shorter duration of response for subsequent lines of treatment.[5]

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Considering the many therapies available, varying patient characteristics, and potential side effects, choosing the most appropriate treatment plan can be challenging. In addition, involving patients and their care partners in the decision-making process is crucial to achieving and maintaining the desired QoL for the patient. Many therapies can also be burdensome to patients and care partners; patients must carefully consider their options and balance the potential benefits of therapy with the possible side effects and impact on their QoL.[6–8] Research demonstrates that patients' treatment decisions are significantly influenced by personal circumstances, preferences, and the guidance provided by their physicians when presented with various treatment options.[9] However, one investigation showed that, at baseline, only 24% of clinicians would consider patients' preferences as part of the decision-making process, but after participating in an educational program covering shared decision-making (SDM) concepts, 69% stated they would.[10]

SDM is a communication process in which the interaction between a clinician and their patient includes both perspectives, and individual values are elicited and considered thoughtfully and respectfully before arriving at a treatment choice.[11] When patients and care partners are included in the decision-making process, they can provide valuable insights about their experiences, concerns, and treatment expectations, which can help physicians tailor treatment plans accordingly. Additionally, published literature demonstrates that alignment between patients and those involved in their care yields improved treatment adherence and outcomes.[12] Thus, it is essential to provide patients and care partners with information to improve their knowledge of treatment options available, and to learn about the various perspectives in MM decision-making to help patients achieve their treatment goals, optimize treatment outcomes, and maintain a desired QoL. This study sought to identify and describe how patients, care partners, and physicians prioritize treatment attributes in MM decision-making, and how these attributes may change over the treatment journey.

Materials and Methods

This was a cross-sectional survey of patients, care partners, and physicians in the US. Data were collected using online survey platforms from Inspire Insights (Inspire) and M3 Global Research between September 16 and December 26, 2022.

Selection of Participants

Patients and care partners were recruited via Inspire, the world's largest online health community.[13] Inspire has supported research in various health communities[14–18] and their communities includes patients, care partners, patient advocates, and individuals interested in learning or sharing health information. Physicians were identified from M3 Global Research's database, which represents a nationally diverse sample of physicians who agree to participate in survey research.[19–25]

All potential respondents were invited via Email to participate in the research and completed a screening questionnaire to ensure they were eligible to participate in the study. As part of the screening, respondents were asked to give electronic consent, and those who agreed were immediately directed to the main survey.

Patient eligibility included being at least 18 years old, having a self-reported diagnosis of MM for a minimum of 6 months, and currently receiving medical care for MM by a physician. Care partners were required to be 18 years or older and self-identify as a family member or friend who provided routine caregiving to a patient with MM (eg, medication management, scheduling doctor appointments, gathering medical information). Care partners employed as healthcare professionals by the patient or the patient's family were excluded. Physicians who were recruited for the survey were required to be board certified in Hematology and/or Oncology, be licensed to practice medicine in the US, have at least 2 years of experience, and treat at least 5 patients with MM annually. The investigators were blinded to the identity of the patients, care partners, and physicians; thus, while linked dyads or triads could be possible, they could not be identified.

Main Survey

Survey questions were developed based on a targeted literature review of treatment attributes in MM treatment decision-making, in addition to insights gathered from qualitative interviews conducted with 20 patients and 5 care partners. The surveys were reviewed and modified based on input from a steering committee comprising of 3 clinical experts, 2 patients, and 1 care partner. Before rolling out the full launch to all eligible participants, a preliminary soft launch was conducted to verify data quality.

The surveys were tailored for each group (patient, care partner, physician) and included 35–39 questions of various multiple-choice, ranking, and Likert scale questions, including some questions that were adapted from previously validated scales. For example, the patient and care partner surveys included the Time and Outcomes Preference Scale[26] to assess the baseline preferences of quality versus quantity of life (subscale 1) and present health versus future health (subscale 2). This study was approved by the Western Institutional Review Board-Copernicus Group Institutional Review Board.

Analysis

Aggregated descriptive statistics were used to report participant demographics, patient clinical characteristics, and responses to the survey questions. Means and standard deviations (SDs) were reported for continuous variables while frequencies and percentages were reported for categorical variables. Items with Likert scale responses were reported as frequencies and means ± SD. For ranking exercises, the average ranking values were calculated for each option and then sorted from least to greatest to determine the most preferred answer choice. The answer choice with the lowest average ranking indicated the most preferred selection. The Time and Outcomes Preference subscale scores were calculated for each patient and care partner by adding up the item scores per subscale and dividing by the number of items in each subscale. The median and interquartile range (IQR) of the respondents' Time and Outcomes Preference subscale 1 and 2 scores were used to summarize their preferences.

Results

Email invitations were sent to 8071 Inspire health community members who were interested in or posted about MM. Among these, 4427 members viewed the invitation (55%) and 941 members responded to the Email (12%). A total of 156 patients and care partners were eligible to participate and completed the survey (17% of respondents). For physicians, 5588 were invited via Email by M3 Global Research, 761 viewed the invitation, 214 physicians accessed the survey link, and 137 physicians were eligible and completed the survey (64% of respondents).

The final survey groups consisted of 126 self-identified patients with MM, 30 self-identified MM care partners, and 137 physicians treating MM from various geographic regions in the US (Table 1). Patients living with MM reported having the disease for an average of 6.4 years (SD 4.2). Thirty-one (25%) of the 126 patient respondents

Table 1 Respondent Population and Characteristics

	Patients (N=126)	Care Partner (N=30)	Physicians (N=137)
Age, mean (SD)	60.3 (11.4)	47.6 (11.3)	48.0 (10.0)
18–24	1 (1)	0	0 (0)
25–34	2 (2)	1 (3.3)	6 (4)
35–44	9 (7)	13 (43.3)	52 (38)
45–54	22 (17)	5 (17)	47 (34)
55–64	42 (33)	10 (33)	20 (15)
65+	50 (40)	1 (3.3)	12 (9)
Sex, n (%)			
Female	85 (67)	12 (40)	32 (23)
Race, n (%)[a]			
White	86 (68)	12 (40)	50 (37)
Black	30 (24)	18 (60)	40 (29)

(Continued)

Table 1 (Continued).

	Patients (N=126)	Care Partner (N=30)	Physicians (N=137)
Asian	2 (2)	0	31 (23)
Other[b]	6 (5)	0	2 (1)
Prefer not to answer	2 (2)	0	14 (10)
Ethnicity, n (%)			
Hispanic	7 (6)	2 (7)	7 (5)
Region, n (%)			
Northeast	22 (17)	8 (27)	28 (20)
Midwest	36 (29)	3 (10)	23 (17)
South	35 (28)	7 (23)	55 (40)
West	33 (26)	12 (40)	31 (23)
Regionality, n (%)[c]			
Suburban	15 (12)	3 (10)	26 (19)
Urban	103 (82)	27 (90)	41 (30)
Urban/suburban	–	–	58 (42)[d]
Rural	8 (6)	0 (0)	11 (8)
Practice Type, n (%)			
Community			87 (64%)
Academic			47 (34%)
Years of Post-Graduate Experience, n (%)			
2–6 years			15 (11)
7–10 years			27 (20)
More than 10 years			95 (69)
MM Specialist, n (%)			88 (64)[e]
Patient MM Duration (years), mean (SD)	6.4 (4.2)	4.3 (3.4)[f]	
Number of Relapses, n (%)[g]			
None	31 (25)	5 (17)[f]	
1	19 (15)	5 (17)[f]	
2	23 (18)	11 (37)[f]	
3	20 (16)	4 (13)[f]	
4	17 (13)	5 (17)[f]	
5 or more	13 (10)	0[f]	

Notes: [a] Respondents could have selected multiple races; [b] Other includes other and not reported; [c] One physician reported no predominant regional type; [d] Denotes physicians practicing in both urban and suburban areas; [e] Physicians who self-identified to be an MM specialist; [f] Denotes care partner responses describing their loved one's MM; [g] Three patients responded being unsure of their number of relapses.

had not experienced an MM relapse at the time of the survey, 62 (49%) patients had experienced 1 to 3 relapses, and 30 (24%) patients had experienced 4 or more relapses. Forty-seven percent (47%) of the care partners surveyed were a spouse or partner of a person living with MM. One-half (50%) of all the care partners had been providing care for 1 to 5 years. Additional patient and care partner characteristics are presented in Table S1. The majority of physicians practiced for more than 10 years (69%), practiced in the community setting (64%), and self-identified as an MM specialist (64%).

Treatment Attributes

Multiple factors were important to patients, care partners, and physicians when making MM treatment decisions. All three respondent groups were asked to rank a list of 10 treatment attributes in order of importance from 1 (most important attribute) to 10 (least important attribute). Across all respondent groups, QoL, duration of response, and side effects were ranked in the top three (Table 2). Following these factors, preferences for the other treatment attributes varied among the respondents. For example, treatment breaks were more important to care partners (ranked #4) compared to patients (ranked #10) or physicians (ranked #8). Additionally, patients valued care partner support and cost (ranked #5 and 6, respectively) more highly than care partners themselves (ranked #7 and #8) and physicians (ranked #9 and #10). Other important attributes for physicians were logistics, such as monitoring (ranked #4) and treatment location (ranked #5); however, patients and care partners ranked those as least important.

When evaluating treatment attributes reported by patients according to their place in therapy (defined by the number of relapses they have experienced), QoL, duration of response, and side effects were still selected as the top three treatment attributes overall (Table 3). Patients with no history of relapses ranked cost fourth; however, patients with a history of relapses ranked cost at seventh (1 to 3 relapses) and ninth (4 or more relapses). For patients who experienced 4 or more relapses, having treatment breaks (ranked #5) was prioritized more than patients who experienced fewer or no relapses (ranked #10).

When physicians ranked treatment attributes based on the patient's disease severity, cost was less of a concern when treating patients with relapsed or refractory MM, while convenience and the opportunity for treatment breaks became more important (Table 4).

Table 2 Ranking of Treatment Attributes, by Respondent Type

Rank	Patient (N=126)	Care Partner (N=30)	Physician (N=137)
1	Expected duration of response (3.1)	Impact on patient QoL (2.9)	Expected duration of response (3.6)
2	Impact on patient QoL (3.4)	Expected duration of response (4.3)	Impact on patient QoL (3.9)
3	Side effects of treatment (3.5)	Side effects of treatment (4.5)	Side effects of treatment (4.1)
4	Dosing frequency (5.8)	Dosing frequency (4.9)	Required treatment effect or side effect monitoring frequency (5.2)
5	Expected need for care partner support (6.2)	Opportunity for treatment breaks (5.2)	Convenience of medication administration (6.0)
6	Cost of care and treatment (6.2)	Mode of medication administration (5.7)	Mode of medication administration (6.3)
7	Mode of medication administration (6.3)	Expected need for care partner support (6.8)	Dosing frequency (6.4)
8	Convenience of medication administration (6.6)	Cost of care and treatment (6.8)	Opportunity for treatment breaks (6.4)
9	Required treatment effect or side effect monitoring frequency (6.9)	Convenience of medication administration (6.8)	Expected need for care partner support (6.5)
10	Opportunity for treatment breaks (7.1)	Required treatment effect or side effect monitoring frequency (7.2)	Cost of care and treatment (6.5)

Notes: Numbers in parentheses represent the mean score for each ranking. Lower scores indicate attributes that were more important to respondents. Survey question: When you/your loved one is faced with a decision about your/their multiple myeloma treatment, how important are the following treatment attributes to you? Please rank in order from 1 (most important consideration) to 10 (least important consideration).
Abbreviation: QoL, quality of life.

Table 3 Patient Ranking of Treatment Attributes by Number of Relapses Reported

Rank	None (N=31)	1 to 3 Relapses (N=62)	4 or More Relapses (N=30)
1	Side effects of treatment (2.6)	Expected duration of response (2.9)	Side effects of treatment (2.6)
2	Impact on patient QoL (2.9)	Impact on patient QoL (3.4)	Expected duration of response (2.9)
3	Expected duration of response (3.8)	Side effects of treatment (4.3)	Impact on patient QoL (3.8)
4	Cost of care and treatment (4.8)	Mode of medication administration (5.6)	Dosing frequency (5.1)
5	Dosing frequency (5.8)	Expected need for care partner support (6.0)	Opportunity for treatment breaks (5.9)
6	Expected need for care partner support (6.7)	Dosing frequency (6.1)	Expected need for care partner support (6.5)
7	Convenience of medication administration (6.7)	Cost of care and treatment (6.3)	Required treatment effect or side effect monitoring frequency (6.9)
8	Mode of medication administration (7.1)	Convenience of medication administration (6.3)	Convenience of medication administration (6.9)
9	Required treatment effect or side effect monitoring frequency (7.2)	Required treatment effect or side effect monitoring frequency (6.7)	Cost of care and treatment (7.1)
10	Opportunity for treatment breaks (7.3)	Opportunity for treatment breaks (7.5)	Mode of medication administration (7.2)

Notes: Numbers in parentheses represent the mean score for each ranking. Lower scores indicate attributes that were more important to respondents. Survey question: When you are faced with a decision about your multiple myeloma treatment, how important are the following treatment attributes to you? Please rank in order from 1 (most important consideration) to 10 (least important consideration).
Abbreviation: QoL, quality of life.

Table 4 Physician Ranking of Treatment Attributes by Patient Disease Severity

Newly Diagnosed MM	Rank	Relapsed Refractory MM
Expected duration of response (3.6)	1	Expected duration of response (3.7)
Impact on patient QoL (4.2)	2	Impact on patient QoL (3.7)
Side effects of treatment (4.2)	3	Side effects of treatment (4.0)
Required treatment effect or side effect monitoring frequency (4.8)	4	Required treatment effect or side effect monitoring frequency (5.6)
Convenience of medication administration (6.2)	5	Convenience of medication administration (5.8)
Dosing frequency (6.2)	6	Opportunity for treatment breaks (6.3)
Mode of medication administration (6.3)	7	Mode of medication administration (6.4)
Cost of care and treatment (6.4)	8	Expected need for care partner support (6.4)
Opportunity for treatment breaks (6.6)	9	Dosing frequency (6.6)
Expected need for care partner support (6.6)	10	Cost of care and treatment (6.7)

Notes: Numbers in parentheses represent the mean score for each ranking. Lower scores indicate attributes that were more important to respondents. Survey question: Below is a list of treatment related attributes that you might consider when making a treatment recommendation or choice for a patient with newly diagnosed/relapsed or refractory multiple myeloma. Please rank these considerations in the order of how important they are to you. Please rank in order from 1 (most important consideration) to 10 (least important consideration).
Abbreviation: QoL, quality of life.

In a separate exercise, patients and care partners were asked to rank factors (beyond treatment attributes) that were important to them when making a decision about their/their loved one's next possible MM treatment (1-Not important at all; 4-Very important). The leading factors ranked as "more or very important" for both patients and care partners included the patient's current QoL, how much caregiving was needed during or after treatment, experiences with prior medications, how well they can get around/to travel, and financial issues. Overall, a larger proportion of care partners attributed higher importance to most factors compared to patients when it came to the next treatment decision (Figure 1).
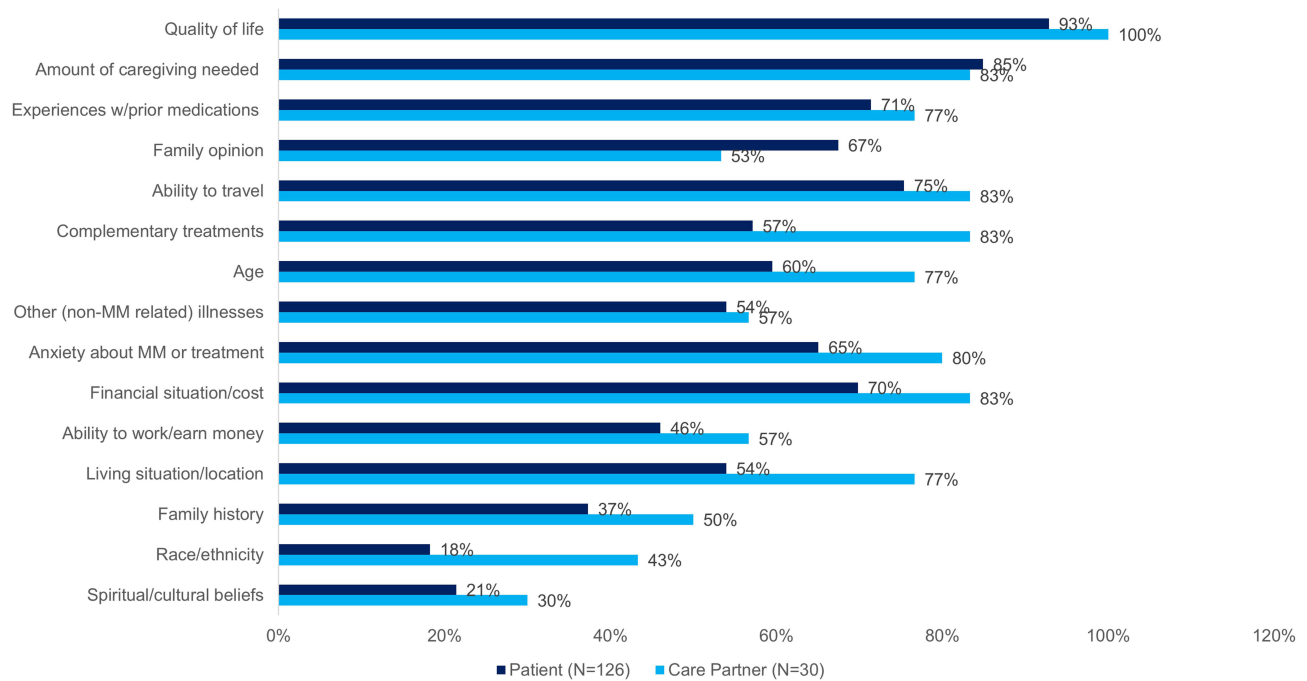
Figure 1 Factors ranked as more or very important when making a decision about next possible treatment for MM.
Notes: Survey question: How important to you are the following factors when making decisions about a next possible multiple myeloma treatment for you/your loved one?

Only the amount of caregiving needed (85% of patients vs 83% of care partners) and other family members' opinion (67% of patients vs 53% of care partners) were ranked as "more or very important" by a slightly larger percentage of patients compared to care partners.

Trade-Offs for Better Treatment Response

Respondents were asked how likely they would be to accept certain trade-offs of a newer MM treatment with potentially a more favorable response. Figure 2 shows the ranking of the trade-offs among patients and care partners (1-Highly
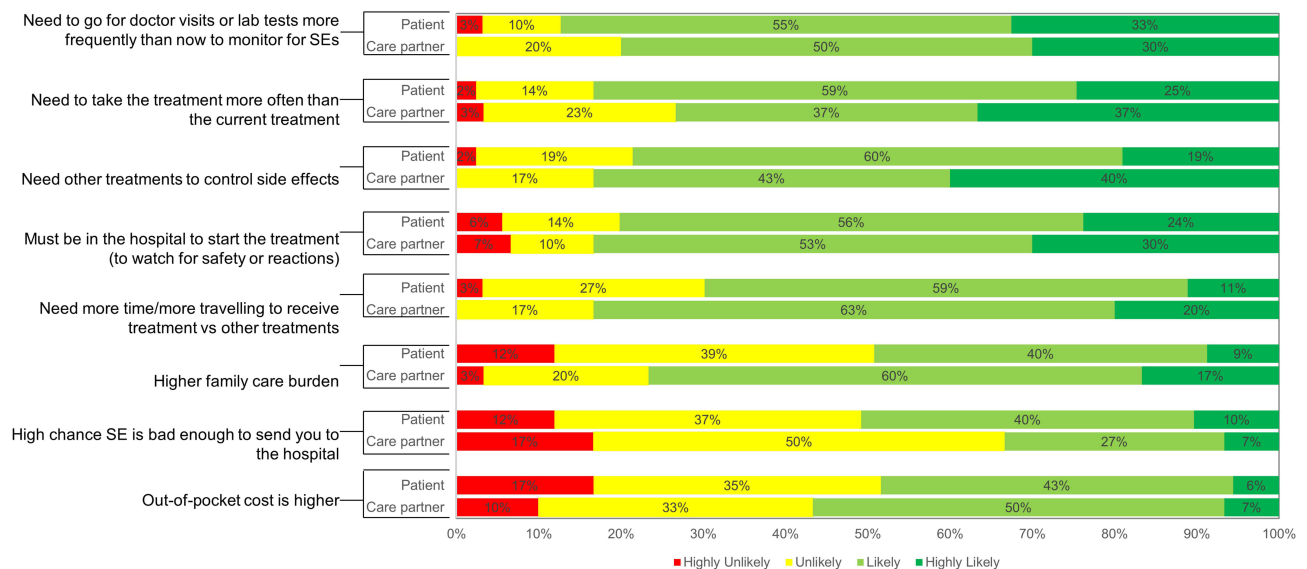
Figure 2 Acceptance of trade-offs for patients and care partners.
Notes: Sample: All Patients (N=126) and care partners (N=30). Survey question: Imagine a new treatment for multiple myeloma was offered which would provide a very favorable response. How likely would you be to accept any of the following "trade-offs"?
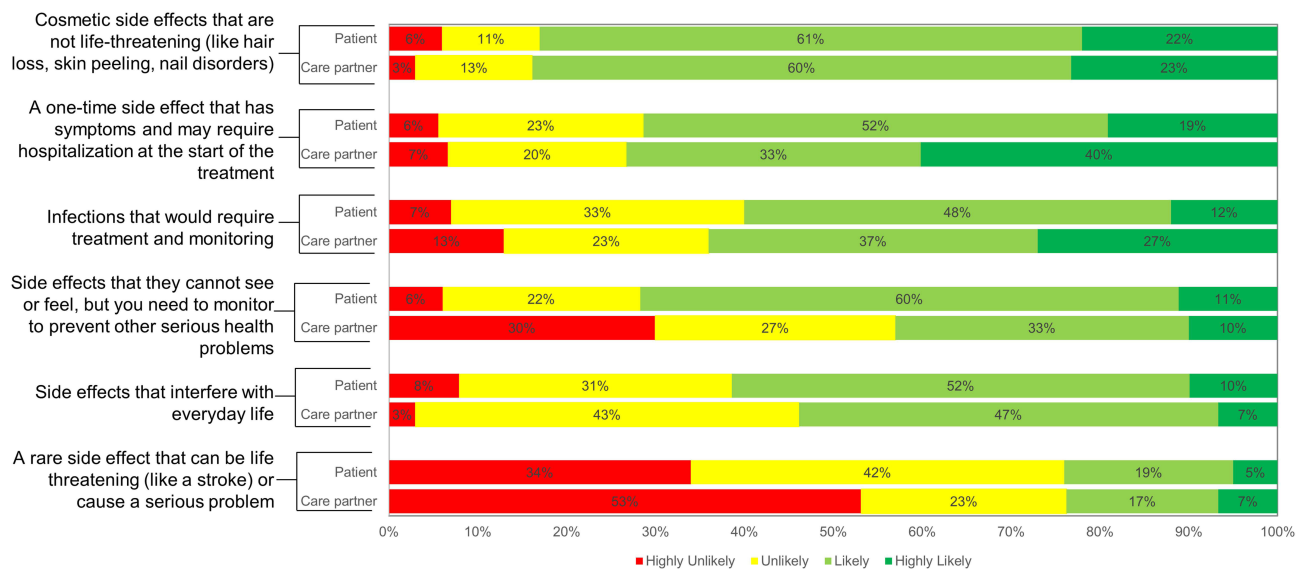
Figure 3 Acceptance of treatment side effects for patients and care partners.
Notes: Sample: All Patients (N=126) and care partners (N=30). Survey question: Imagine a new treatment was offered to you for multiple myeloma which would provide a very favorable response. How likely would you be to accept the following types of side effects if they were known to occur with this treatment?

Unlikely; 4-Highly Likely). Most patients and care partners were likely or highly likely to tolerate some inconveniences for a better treatment response; this included increasing the frequency of clinic visits to monitor for side effects (88% patients, 80% care partners), taking medications more frequently (84% patients, 74% care partners), adding treatment to control side effects (79% patients, 83% care partners), and being in the hospital to start treatment (80% patients, 83% care partners). Care partners were more willing to assume greater family burden (77%) compared to patients (49%), and patients were more accepting of potential serious side effects (50%) than were care partners (34%).

Patients and care partners were also asked to consider specific side effects as a trade-off for a new hypothetical treatment (Figure 3). Approximately 83% of patients and care partners were likely or highly likely to accept non-life-threatening cosmetic side effects. More than 70% of patients and care partners were likely or highly likely to accept a one-time side effect that may require hospitalization when starting treatment. A rare side effect that would be life threatening or cause a serious problem had the least acceptance, with 76% of both patients and care partners selecting "unlikely or highly unlikely" when presented with this statement.

Global Health Preferences

Although the trade-off exercises in this study were hypothetical, patients, care partners, and physicians often need to prioritize competing adverse side effects and desired outcomes when making treatment decisions. One way to clarify trade-offs in decision-making is to prioritize universal health outcomes. These outcomes include extension of life, reducing symptoms, and maintaining independence, which directly impact patients with various chronic conditions.[27] The Time and Outcomes Preference Scale[26] uses a 5-point scale to assess patient views on universal health outcomes and addresses two common trade-offs among these outcomes in treatment decisions: Subscale 1: quality versus quantity of life, and Subscale 2: present versus future health. The median score for the Subscale 1 was 3.5 for patients (interquartile range [IQR] 1.0) and 3.75 (IQR 1.5) for care partners, indicating more agreement with statements prioritizing quality over quantity of life. For Subscale 2, the median score was 2.17 (IQR 0.67) for patients and 2.33 (IQR 1.33) for care partners, suggesting more agreement with statements prioritizing future over present health.

Discussion

This study describes the treatment attributes and other factors valued by patients, care partners, and physicians during decision-making for MM treatment. Our findings show that the most important attributes among all groups were duration

of response, QoL, and side effects. These attributes also did not change based on a patients' number of relapses. Alignment on these top treatment attributes among individuals living with MM and their care team is consistent with previous preference research.[6,28]

Our study is unique in that few quantitative preference studies include QoL as a treatment attribute;[29,30] most quantitative preference studies have focused on efficacy, safety, treatment frequency and mode, and cost attributes.[6,28,31,32] The burden of MM has been shown to negatively impact patients' QoL and their physical, emotional, and social wellbeing.[33,34] While advances in MM treatment have extended life expectancy, treatment burden is substantial and patients need to balance the risk of disease complications and cumulative side effects from prolonged treatment.[35] Our research highlights the significance of not concentrating solely on prolonging patients' lifespan but also on effectively addressing the symptoms and adverse effects that impact their QoL.

Misalignment in understanding what is most important to patients and their care partners can lead to misconceptions about their needs and preferences, ultimately impacting the patient's treatment journey. While there was agreement on the top treatment attributes, some heterogeneity among patients, care partners, and physicians was observed in factors that impacted QoL and trade-offs. For example, patients and care partners valued treatment factors related to QoL (eg, dosing frequency, care partner support requirements, treatment breaks) while physicians focused more on convenience factors (eg, monitoring frequency, medication administration). Additionally, when asked about trade-offs, patients and care partners showed a greater willingness to exchange convenience for the potential of achieving a better treatment response.

When evaluating patients by their experience with treatment relapses, a notable difference was found in the ranking of treatment breaks. For patients who experienced 4 or more relapses, treatment breaks were prioritized as the fifth most important attribute whereas those with 0–3 relapses ranked it last. Patients with relapsed or refractory MM are faced with complex trade-offs between benefits and risks across several treatment options, while enduring increased time burden, more frequent hospital visits, and longer treatment duration as their disease progresses.[36] The fear of relapse and the uncertainty surrounding this clinical event have been highlighted as key contributors to emotional burden among patients;[37] therefore, our findings may reflect patients who experienced side effects from prolonged treatment and who had increased care needs as their disease progressed. Understandably, treatment fatigue and burden are likely barriers to health and may impact outcomes.

As primary support systems, family members and care partners can be intimately involved in treatment decision-making. Although care partners' and patients' treatment preferences were mostly aligned, care partners were more willing to assume a greater family burden and placed lower importance on care partner support. Conversely, patients were more accepting of side effects compared to care partners. Improved and open communication between care partners and patients could enhance alignment in MM decision-making. According to a study by Pritlove et al, care partners typically assume the majority of the responsibilities related to illness care at home; however, this often came at the expense of the care partner's own health needs.[38] These findings may reflect that most care partners had a close relationship with their patient (eg, spouse or another relative) and may value long-term outcomes and improved QoL for their loved one. Another aspect to this is that care partners often neglect their own personal mental, social, and emotional well-being and, therefore, could benefit from receiving additional support for themselves.

Strengths and Limitations

There are several strengths in this study, which include the diverse representation of racial/ethnic groups in the three respondent groups; this is often a limitation in current literature. The important role of care partners in treatment decision-making and the patient journey is also highlighted in this study. The analysis includes a comparison of attributes across all disease stages (ie, newly diagnosed, early relapse, and late relapse), identifying how treatment decisions may change over a patient's treatment journey.

Limitations to this study include the lack of generalizability of the results because the data from this descriptive study may not be representative of all people with MM, all care partners of people with MM, and all physicians treating people with MM. Due to the potentially non-representative data, descriptive statistics were chosen to prevent generating misleading or unreliable conclusions that might have been drawn from statistical comparisons and/or modeling. Patient respondents were from the US, and younger than the average age at which individuals are typically diagnosed

with MM (median age 69). Also, given the online platform used for recruitment and survey administration, patients who are not engaged in social media or those who lack access to the internet or to electronic devices may be under-represented, resulting in selection and response bias. Additionally, recall bias may be relevant because participants may not remember previous events or experiences accurately or may omit important details. Furthermore, it is important to note that patients and care partners were not required to specify their roles when registering as members in the Inspire online health community. As a result, survey invitations were sent all potential and eligible members to participate, including those who had not previously identified as a patient or care partner. The low patient and care partner response rates may be partly due to individuals who received the survey invitation despite not being patients with MM or care partners. Finally, this study did not explore roles of other trusted healthcare team members, such as nurses and advanced practice clinicians, who may influence the treatment decision-making process with patients and care partners.

Conclusions

Given the complexity of MM treatment decisions and the impact on patients' lives, understanding patients' preferences and values is valuable to collaborative decision-making, which can reduce decisional conflict in treatment decisions. Our study emphasizes the importance of not only having a holistic treatment approach to targeting the disease, but also prioritizing the mitigation of treatment-related burden, while preserving patients' daily functioning and emotional well-being. The differing perspectives among the groups in our study supports the need for clinicians to use SDM in their practice to ensure patients' values and preferences are being elicited and incorporated into the treatment decision-making process. Additionally, considering care partners' preferences and providing tailored support for them may alleviate care partners' burden. Finally, individual treatment paths for MM may impact patients' QoL differently; therefore, the practice of SDM through patient decision aids can be a vital tool in optimizing treatment outcomes while honoring patients' personal values and preferences.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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