PA-481

Socioeconomic Factors Affecting Health Equity in Patients With Relapsed or Refractory Multiple Myeloma

Yvonne Efebera,[1] Jeff O'Donnell,[2] Yelak Biru,[3] Nicolas Cormier,[4] Rebecca Davies,[5] Anthony Greenwood,[5] James Farrell,[6] Jack Watkins,[7] Leo Rasche[8]

[1]Ohio Health Hematology/Oncology, Blood and Marrow Transplant, Columbus, OH, USA; [2]Patient Author; [3]Patient Advocate; [4]Centre Hospitalier Universitaire de Nantes, Nantes, France; [5]Research Partnership, London, UK; [6]Pfizer, Ltd., Dublin, Ireland; [7]Pfizer Inc, New York, NY, USA; [8]University Hospital Würzburg, Würzburg, Germany

Objectives

To build on existing evidence by evaluating how socioeconomic status influences awareness, access, and decision-making around CAR-T and BsAb therapies in patients with RRMM, with a focus on identifying actionable opportunities to improve treatment equity

Conclusions

- Socioeconomic status impacts the chance of being offered CAR-T or BsAbs
- Socioeconomically vulnerable patients relied more heavily on HCPs for education
- Combined, these results highlight the need for appropriate patient education and support to improve equitable treatment (eg, through assistance programs)
- CAR-T and BsAb treatment could offer tailored approaches to manage the needs of time-limited, financially-burdened patients if socioeconomic barriers are addressed

Electronic Poster and Supplementary Materials

Please scan this Quick Response (QR) code with your smartphone app to view this poster and supplementary materials. If you do not have a smartphone, access the poster via the internet at: https://scientificpubs.congressposter.com/p/68xqhccwhi55ba6d

References: 1. Holstein SA, et al. J Clin Oncol 2023;41:4416-4429. **2**. Visram A, et al. Am J Hematol 2023;98:E197-E199.

Acknowledgments: We thank the patients and physicians who participated in this study. We also thank the Multiple Myeloma Research Foundation for disseminating the survey to their patient network and Sago and SERMO for managing the global patient and HCP survey recruitment. We acknowledge the valuable contributions of the global steering committee members, Kenshi Suzuki, Elena Zamagni, Albert Oriol, Kevin Brigle, and Hannah Belcher; patients Jeff O'Donnell and Judith Hume in concept elicitation and discussion; and Holly Fedeyko and Rachel Hurrell for designing the survey.

The study was sponsored by Pfizer. Medical writing support was provided by Robyn Roth, PhD, from Nucleus Global and was funded by Pfizer.

Disclosures: YE reports speakers bureau for Janssen, Takeda, Oncopeptides, GSK, Pfizer, Sanofi, and BMS. **JO** and **YB** report no disclosures. **NC** reports consultancy and honoraria for Roche Genentech, Pfizer, Janssen, Merck Serono, BMS, and Servier. **RD** and **AG** report employment by the Research Partnership, which was a paid consultant to Pfizer in connection with development of this poster. **JF** and **JW** report employment and stock ownership with Pfizer. **LR** reports consulting or advisory role for BMS, Amgen, GSK, Janssen, Sanofi, and Pfizer; research funding from BMS; travel support from Janssen and BeiGene; and honoraria from BMS, Janssen, Pfizer, and Sanofi.

Contact: Yvonne Efebera, Efebera@ohiohealth.com

Presented at the 2025 IMS Annual Meeting
September 17-20, 2025 | Toronto, ON, Canada

Background

- Socioeconomic factors impact health equity among patients with relapsed or refractory multiple myeloma (RRMM), often limiting access to advanced treatments like chimeric antigen receptor T-cell (CAR-T) and bispecific antibody (BsAb) therapies[1,2]
- Identifying and addressing these determinants may ensure equitable care for all patients with RRMM

Methods

- A 30-minute, web-based quantitative survey was conducted across 7 countries (US, UK, France, Germany, Italy, Spain, and Japan)
- Inclusion criteria: ≥18 years of age; diagnosed with MM, with disease progression or ≥1 relapse
- Data collection occurred between March and June 2024
- Questions were presented in a range of formats, including multiple choice (single or multiple selection) and prioritization (ranking and rating). All questions in the survey were close-ended questions
- Data were analyzed using descriptive statistics and χ^2 tests

Results

PATIENTS

- Patient (N=1301) demographics are available in **Supplementary Table 1**
  - Patients reported their financial situation as difficult/very difficult (32%), neutral (42%), or easy/very easy (26%)
  - Less than half of the patients (39%) were employed

BURDEN

- Patients most commonly feel physically and emotionally or mentally burdened (**Figure 1**)
- Financial burden affected 52% of patients (62% among those with secondary education or lower)
- Physical burden was more common among patients with neutral or difficult finances, females, and patients aged ≥65 years
- Emotional or mental burden was similar across patient groups
- Social burden was experienced more by younger patients, those who are employed, or those with dependents

AWARENESS OF BsAb AND CAR-T

- Globally, there was greater awareness of BsAbs and CAR-T among employed vs unemployed patients, patients educated above secondary level vs not, and financially stable vs burdened patients (**Figure 2**)
- Among patients who were aware of these therapies, those more likely to have discussed and been offered BsAbs and CAR-T were employed vs not employed, financially stable vs burdened, aged <65 vs ≥65 years, treated by an MM specialist vs not, and male vs female (**Figure 3**)
- Younger patients were more likely to accept BsAbs when offered, (aged <65, 71% vs aged ≥65, 32%; *P*<.01), as were patients who were employed (employed, 72% vs not employed, 33%; *P*<.01) (**Supplementary Figure 1**). There were no statistically significant differences for CAR-T acceptance between patient groups

Figure 1. Disease and treatment burden

More common / Less common

	Total	Age, years		Treated by specialist		Sex		Employment		Education		Dependents		Financial burden		
		<65	≥65	Yes	No	Male	Female	Employed	Not Employed	≤ Secondary	> Secondary	Yes	No	Easy/ very easy	Neutral	Difficult/ very difficult
N	1301	456	845	716	585	829	471	511	790	251	1046	707	594	337	547	417
Physical burden	75%	69%	78%[a]	72%	77%[b]	73%	78%[c]	71%	77%	75%	74%	71%	79%[d]	61%	81%[e]	77%[e]
Emotional or mental burden	61%	64%	59%	63%	59%	60%	64%	65%	58%	64%	61%	61%	61%	59%	63%	60%
Financial burden	52%	49%	54%	55%[g]	49%	51%	54%	50%	54%	62%[d]	50%	52%	53%	44%	42%	73%[eh]
Time burden	39%	44%	36%	41%	36%	39%	39%	43%	36%	39%	39%	42%[d]	35%	41%	34%	44%[f]
Social burden	32%	41%[d]	27%	34%[d]	29%	32%	30%	40%[d]	26%	36%	31%	34%	29%	36%	31%	29%
None of the above	3%	4%	3%	4%[d]	2%	3%	3%	2%	4%	2%	3%	3%	4%	7%[dh]	3%[i]	0%

[a]*P*=.024 compared with age <65 years; [b]*P*=.043 compared with treated by a specialist; [c]*P*=.035 compared with male; [d]*P*<.01 within subcategory; [e]*P*<.01 compared with easy/very easy; [f]*P*<.01 compared with neutral; [g]*P*=.021 compared with not treated by a specialist; [h]*P*=.011 compared with difficult/very difficult; [i]*P*=.025 compared with difficult/very difficult

Figure 2. BsAbs and CAR-T awareness among patients (% of patients who know something or a lot about either)

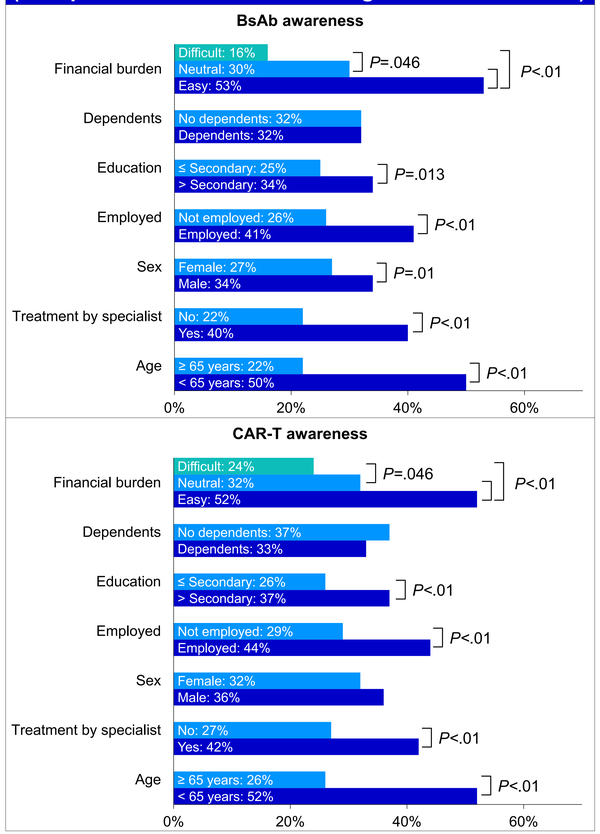
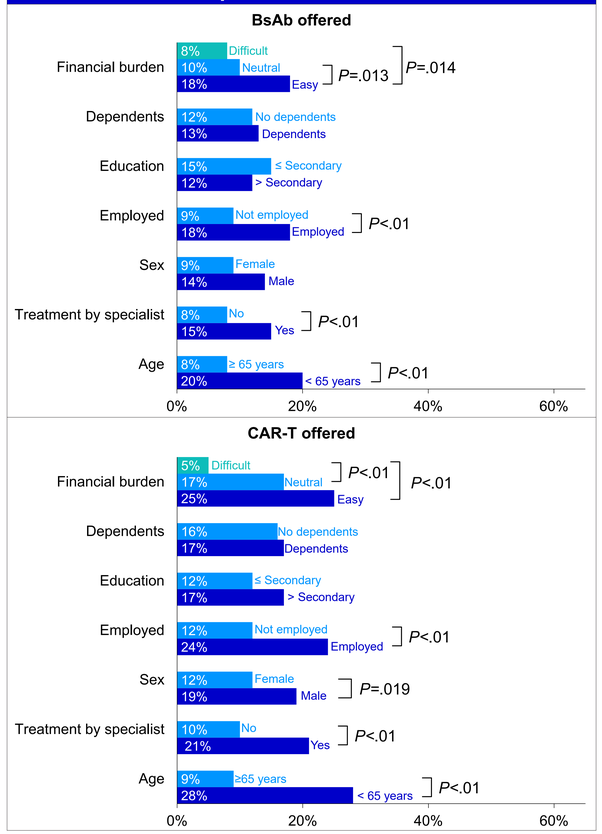


Figure 3. BsAbs and CAR-T offered to patients who were aware of these therapies



TREATMENT GOALS

- Overall top treatment goals were slowing disease progression (48%), limiting side effects (46%), and living longer (38%) (**Supplementary Figure 2**)
- Limiting costs was also a priority for patients with financial difficulties (40% vs 26%, *P*<.01), patients with ≤ secondary education (36% vs 29%, *P*=.024), and patients with no dependents (34% vs 27%, *P*<.01)
- Patients with good finances prioritized convenience (38% vs 21%, *P*<.01) and limiting challenges for caregivers (32% vs 16%, *P*<.01)
- Convenience was also a priority for patients who were employed (36% vs 26%, *P*<.01) and patients with dependents (34% vs 25%, *P*<.01)

EDUCATION BY HEALTHCARE PROVIDERS

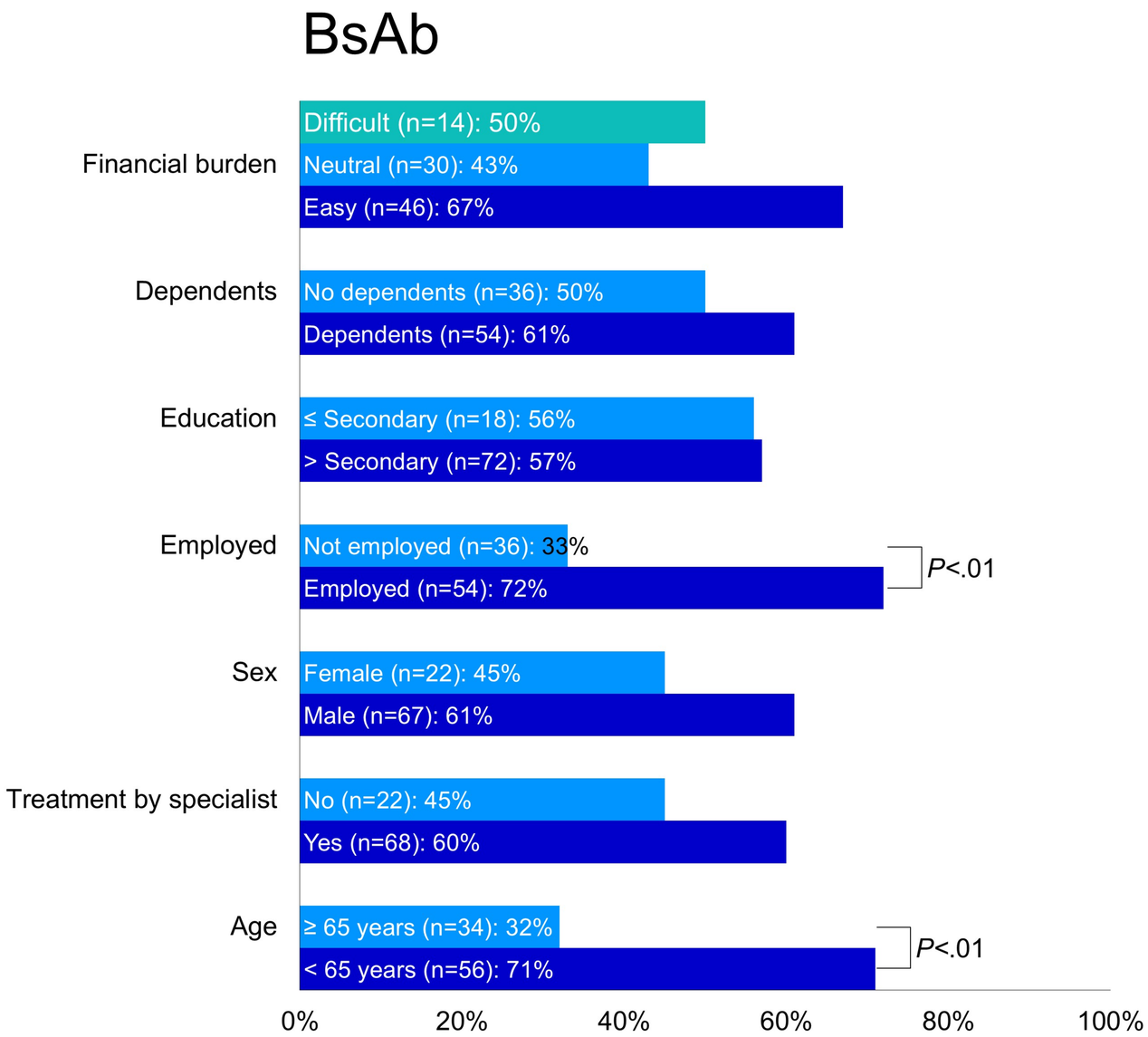
- Patients who were older, female, with no dependents, not employed, less educated, not treated by a specialist, or with financial burdens reported learning more than their counterparts from their healthcare providers (HCPs) about a range of treatment topics (**Supplementary Figure 3**)
- These topics included side effects and safety risks identified in clinical trials (76%-83% vs 49%-70%, intra-category *P*<.05), clinical efficacy data (69%-76% vs 46%-63%, intra-category *P*<.05), ongoing trials the patient may be eligible for (70%-77% vs 42%-64%, intra-category *P*<.01), and how the patient's treatment choice may impact future treatment options (64%-72% vs 41%-61%, intra-category *P*<.05)
- Such patients also reported having more support from their HCPs (**Supplementary Figure 4**)

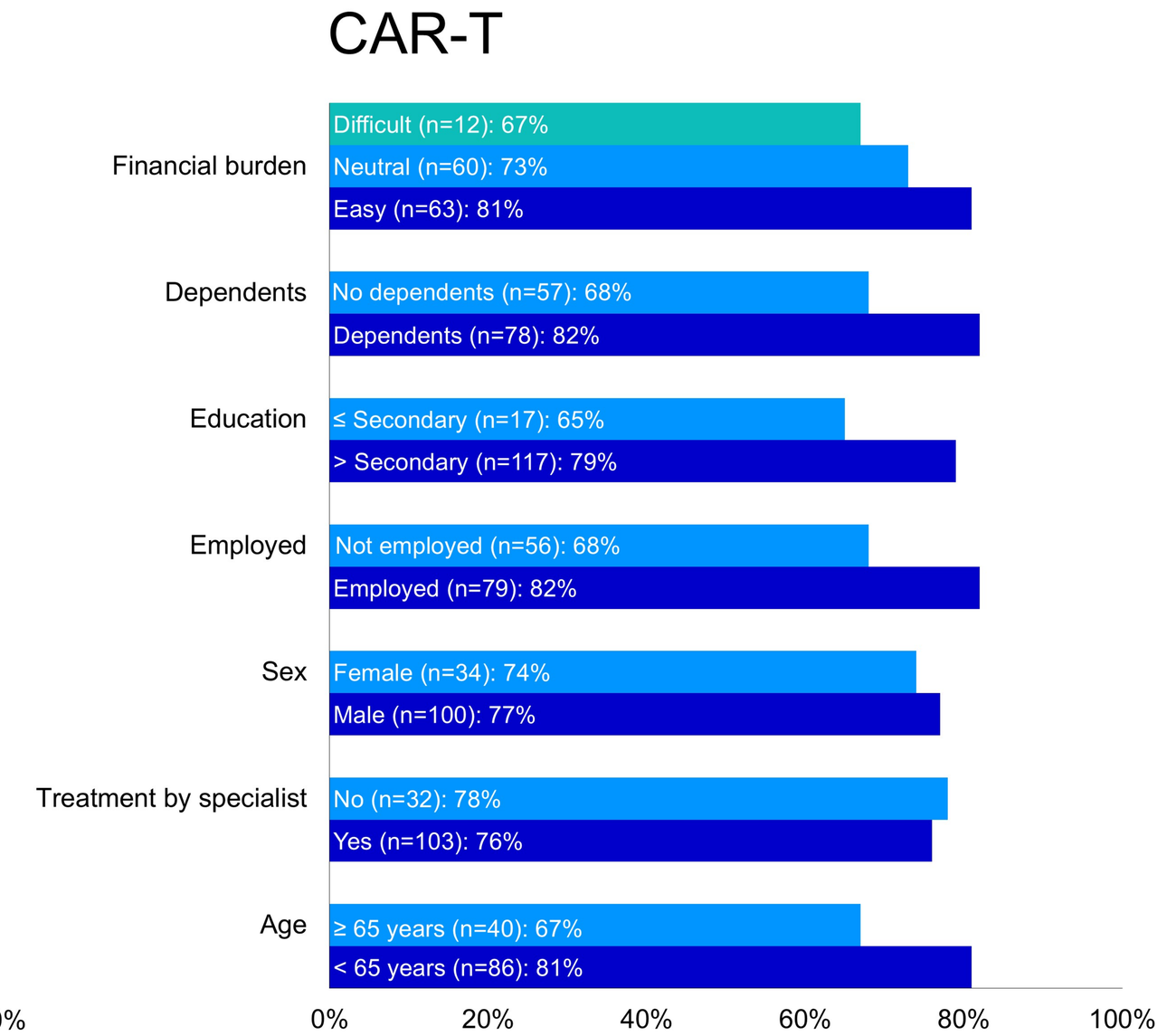
Supplementary Table 1. Patient demographics

Supplementary Table 1. Patient demographics											
		Total N=1301	**US n=305**	**Japan n=126**	**France n=256**	**Germany n=207**	**Italy n=162**	**Spain n=115**	**UK n=130**	**Ex-US n=996**	**EU5 n=870**
Current line of treatment, n (%)	2L	553 (43)	136 (45)	49 (39)	129 (50)	98 (47)	72 (44)	38 (33)	**31 (24)**	417 (42)	368 (42)
	3L	476 (37)	106 (35)	51 (40)	69 (27)[b]	79 (38)	66 (41)	57 (50)	48 (37)	370 (37)	319 (37)
	≥4L	272 (21)	63 (21)	26 (21)	58 (23)	30 (14)	24 (15)	20 (17)	**51 (39)**	209 (21)	183 (21)
Currently in remission, n (%)		477 (37)	133 (44)	51 (40)	97 (38)	94 (36)	51 (32)	12 (10)	39 (30)	344 (35)	293 (34)[c]
Age, n (%)	<65 years	456 (35)	122 (40)	**19 (15)**	102 (40)	82 (40)	64 (40)	**16 (14)**	51 (39)	334 (34)	315 (36)
Sex, n (%)	Male	829 (64)	204 (67)	88 (70)	165 (65)	123 (59)	98 (60)	74 (64)	77 (59)	625 (63)	537 (62)
Employment status, n (%)	Employed	511 (39)	142 (47)	37 (29)	89 (35)	90 (43)	72 (44)	27 (23)[d]	54 (42)	369 (37)	332 (38)
Education, n (%)	Above secondary	1046 (81)	232 (76)	100 (79)	216 (84)	175(85)	129 (80)	91 (79)	103 (80)	814 (82)	714 (82)
Has dependents		707 (54)	156 (51)	75 (60)	150 (59)	99 (48)	101 (62)	65 (57)	61 (47)	551 (55)	476 (55)
Financial situation, n (%)[a]	Easy/very easy	337 (26)	92 (30)	35 (28)	61 (24)	61 (29)	35 (22)	27 (23)	26 (20)	245 (25)	210 (24)
	Neutral	547 (42)	117 (38)	51 (40)	112 (44)	87 (42)	65 (40)	47 (41)	68 (52)	430 (43)	379 (44)
	Difficult/very difficult	417 (32)	96 (31)	40 (32)	83 (32)	59 (29)	62 (38)	41 (36)	36 (28)	321 (32)	281 (32)

Bold indicates *P*<.01 compared with total. [a]Ability to afford necessities; [b]*P*=.014 compared with total; [c]*P*=.035 compared with total; [d]*P*=.012 compared with total.
2L=second line; 3L=third line; ≥4L=fourth line and later; EU5=France, Germany, Italy, Spain and UK; Ex-US=excluding US

Supplementary Figure 1. Patients who decided to accept BsAb or CAR-T treatment when it was offered





BsAb=bispecific antibody; CAR-T=chimeric antigen receptor T cell

Supplementary Figure 2. Treatment goals

Patients were asked which of the options were most important when their most recent MM treatment was being decided. This figure indicates the percentage of patients who ranked the treatment goal in their top 3.

	Total	Employment		Education		Dependents		Financial situation		
		Employed	Not Employed	> Secondary	≤Secondary	Yes	No	Easy/very easy	Neutral	Difficult/very difficult
N	**1301**	**511**	**790**	**1046**	**251**	**707**	**594**	**337**	**547**	**417**
Slowing down my MM from getting worse	48%	41%	53%[a]	46%	57%[a]	45%	52%[a]	42%	46%	57%[b]
Limiting treatment-related side effects	46%	38%	51%[a]	44%	55%[a]	42%	51%[a]	34%	45%[c]	57%[b]
Ability to help me live longer (to reach important life milestones)	38%	42%	36%[a]	39%	35%	42%[a]	34%	39%	39%	38%
Ability to help me do my everyday activities more easily/comfortably	35%	30%	39%	36%	33%	34%	37%	36%	36%	34%
Limiting costs and financial challenges related to treatment	30%	27%	33%	29%	36%[d]	27%	34%[a]	26%	26%	40%[b]
Choosing a treatment that is convenient for me in how I take it or the timing required from me	30%	36%[a]	26%	31%	25%	34%[a]	25%	38%[e]	32%[e]	21%
Ensuring I can be treated without referral to another institution	24%	32%	19%	25%[f]	19%	28%[a]	20%	27%[e]	28%[e]	17%
Limiting challenges for my care partner/carer	24%	27%	21%	25%[g]	18%	26%	21%	32%[h]	24%[e]	16%
Avoid hurting my potential to receive treatment options later in my disease journey	24%	27%[a]	22%	24%	22%	22%	26%	26%	24%	21%

More common — Less common

[a]*P*<.01 within subcategory; [b]*P*<.01 compared with easy/very easy and neutral; [c]*P*<.01 compared with easy/very easy; [d]*P*=0.24 compared with > secondary education; [e]*P*<.01 compared with difficult/very difficult; [f]*P*=.026 compared with ≤ secondary education; [g]*P*=.027 compared with ≤ secondary education; [h] *P*=.020 compared with neutral and *P*<.01 compared with difficult/very difficult

MM=multiple myeloma

Supplementary Figure 3. Topics learned about from HCP

Patients were asked which topics they learned about from their healthcare team, when their most recent MM treatment was being decided

	Total	Age		Treated by specialist		Sex		Employment		Education		Dependents		Financial burden		
		<65 years	≥65 years	Yes	No	Male	Female	Employed	Not Employed	> Secondary	≤ Secondary	Yes	No	Easy/very easy	Neutral	Difficult/ very difficult
N	**1301**	**456**	**845**	**716**	**585**	**829**	**471**	**511**	**790**	**1046**	**251**	**707**	**594**	**337**	**547**	**417**
Side effects and safety risks identified in clinical trials	71%	49%	83%[a]	66%	77%[a]	68%	76%[a]	59%	78%[a]	70%	76%[b]	63%	81%[a]	59%	69%[c]	83%[d]
Clinical data describing how well a Tx has worked for other pts	64%	46%	74%[a]	58%	72%[a]	62%	69%[e]	52%	73%[a]	63%	70%[f]	56%	75%[a]	51%	63%[c]	76%[d]
Ongoing clinical trials I may be eligible for	64%	42%	75%[a]	57%	71%[a]	60%	70%[a]	50%	72%[a]	61%	73%[a]	54%	75%[a]	47%	64%[c]	77%[d]
How Tx choices today may impact future Tx options	60%	41%	70%[a]	55%	65%[a]	57%	64%[g]	48%	67%[a]	58%	67%[a]	49%	72%[a]	50%	61%[c]	66%[c]
Possible ways Tx side effects might affect everyday life/activities	56%	41%	64%[a]	59%	53%	53%	62%[a]	46%	63%[a]	54%	64%[a]	50%	64%[a]	49%	57%	62%[c]
Importance of quickly identifying Tx side effects and taking action	56%	44%	62%[a]	60%	52%	55%	57%	47%	62%[a]	53%	70%[a]	52%	61%[a]	54%	54%	60%
Impact of Tx on my mental health or emotional wellbeing	55%	43%	61%[a]	51%	59%[a]	54%	56%	48%	59%[a]	52%	65%[a]	49%	61%[a]	43%	53%[h]	66%[d]
What I may need after Tx (including any additional care)	54%	42%	60%[a]	52%	56%	54%	55%	46%	59%[a]	53%	57%	46%	64%[a]	50%	57%	53%
Importance of lifestyle changes alongside my Tx; diet or exercise	51%	40%	57%[a]	51%	51%	50%	53%	44%	56%[a]	50%	56%	47%	56%[a]	45%	58%[i]	47%
Time I would need to spend in the hospital or doctor's office for Tx	46%	43%	48%	51%	40%	44%	49%	40%	50%[a]	44%	54%[a]	42%	51%[a]	46%	49%	42%
How to manage costs outside of Tx; travel costs, missed work	37%	34%	39%	41%	33%	36%	39%	36%	38%	36%	43%[j]	32%	43%[a]	41%	36%	36%
Challenges my carer/family might face & support they require	37%	33%	39%	41%	32%	38%	35%	31%	41%[a]	37%	37%	32%	44%[a]	41%[k]	39%	32%
Available resources for Tx logistical challenges	37%	35%	38%	43%	30%	37%	37%	33%	39%	36%	42%	35%	39%	42%[l]	38%	32%
Availability of support, patient advocacy groups, or other	36%	31%	38%	39%	32%	36%	35%	30%	40%[a]	34%	42%[m]	30%	43%[a]	38%	37%	33%
How to afford Tx	35%	29%	39%[n]	39%	31%	36%	34%	33%	37%	35%	37%	32%	39%[a]	36%	34%	37%

More common — Less common

[a]*P*<.01 within subcategory; [b]*P*=.048 compared with > secondary education; [c]*P*<.01 compared with easy/very easy; [d]*P*<.01 compared with easy/very easy and neutral; [e]*P*=.019 compared with male; [f]*P*=.045 compared with > secondary education; [g]*P*=.017 compared with male; [h]*P*=.013 compared with easy/very easy; [i]*P*<.01 vs easy/very easy and difficult/very difficult; [j]*P*=.030 compared with > secondary education; [k]*P*=.046 compared with difficult/very difficult; [l]*P*=.018 compared with difficult/very difficult; [m]*P*=.020 compared with > secondary; [n]*P*=.023 compared with <65 years

HCP=healthcare provider; MM=multiple myeloma; Tx=treatment

Supplementary Figure 4. Support provided by HCP

Patients were asked which their HCP provided, related to their most recent MM treatment and care

	Total	Age		Treated by specialist		Sex		Employment		Education		Dependents		Financial burden		
		<65 years	≥65 years	Yes	No	Male	Female	Employed	Not Employed	> Secondary	≤ Secondary	Yes	No	Easy/very easy	Neutral	Difficult/ very difficult
N	**1301**	**456**	**845**	**716**	**585**	**829**	**471**	**511**	**790**	**1046**	**251**	**707**	**594**	**337**	**547**	**417**
Connect me with a nurse who I can call when I have questions	52%	43%	56%[a]	53%	50%	50%	55%	48%	54%	50%	59%[b]	50%	54%	47%	48%	61%[c]
Conduct follow-up calls to check-in and answer any questions I have	51%	45%	54%	52%	50%	50%	53%	50%	51%	49%	59%[a]	51%	51%	45%	47%	61%[c]
Share information with my care partner or loved ones to reinforce information provided to me	51%	41%	56%[a]	49%	53%	48%	56%[a]	44%	55%[a]	51%	50%	48%	54%[d]	40%	53%[e]	55%[e]
Help me connect with other patients to learn from their experiences	48%	38%	53%[a]	47%	49%	48%	49%	44%	51%[f]	48%	51%	46%	51%[g]	39%	49%[e]	55%[e]
Share physical materials (paper handouts, binders, or folders) for me to review at my own pace	37%	38%	37%	38%	36%	37%	38%	38%	37%	37%	39%	38%	36%	34%	39%	37%
Connect me with a virtual assistant or chatbot that can answer my questions at any time	36%	34%	36%	34%	38%	34%	37%	37%	35%	35%	39%	35%	36%	30%	33%	44%[c]
Share information in smaller portions over time to avoid overwhelming me all at once	35%	38%	34%	35%	35%	35%	36%	36%	35%	35%	36%	35%	35%	38%	36%	32%
Share a link to online materials (videos, articles) that I can review at my own pace	31%	31%	31%	34%[a]	26%	32%	29%	29%	32%	31%	30%	30%	31%	32%	28%	34%

More common — Less common

[a]*P*<.01 within subcategory; [b]*P*=.011 compared with > secondary education; [c]*P*<.01 compared with easy/very easy and neutral; [d]*P*=.033 compared with having dependents; [e]*P*<.01 compared with easy/very easy; [f]*P*=.049 compared with employed; [g]*P*=.048 compared with having dependents

HCP=healthcare provider; MM=multiple myeloma