

SUPPLEMENTARY MATERIAL

A discrete-choice experiment assessing the patient preferences and real-world experiences of patients with migraine in Japan

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Supplemental Table 1. Screening questions at recruitment for qualitative interviews

Screening Questions	Sample Answers	Coding logic
Age	0-100	Exclude: 0-17, 65-100
Did you have a physician diagnosis of migraine	Yes No	Exclude: No
Age at diagnosis of migraine	0-64	Exclude: Difference from current age of 11 years or more (considering recall bias and possibility of change in disease status)
Timing of migraine diagnosis	Within the past 10 years 10+ years ago	Exclude: >10 years ago
Monthly Migraine Days (MMD)	0-31	Exclude: <3 days/month
Prescription medication use (excluding Over The Counter medicine)	Yes No	Exclude: No
Which medications do you use for the treatment of migraine	Over the counter medicine Acetaminophen or NSAIDs Triptan Ditan Preventive treatment medicine (Oral) Preventive treatment medicine (Injectable) Other (Chinese medicine etc.) *Each option is illustrated with examples of product names commonly used in clinical practice in Japan.	Exclude: If only “Over the counter medicine” selected
Sex	Male Female Other / do not wish to answer	-
Current marital status and status of children	Never married (no children) Never married (with children) Married (no children) Married (with children)	-

	Other (no children) Other (with children)	
Occupation status	Full-time regular employee Short-time regular employee Contract employee (fixed-term labor contract) Part-time, part-time employee Temporary staff Outsourcing (freelance) Housewife/Househusband Self-employed (including telework) Unemployed Not applicable	-
Age when first you first experienced a migraine	0-64	-
Average monthly number of visits to a healthcare facility for migraine in the past year	0-31	-
Awareness of associated symptoms	Yes No	-
Any sensory sensitivity during or immediately prior to a migraine	Yes No	-
Duration of migraine medication use	Year: 0-100 Month: 1-11	-
Days of use of acute care prescription medications per month	0-31	Respondents: who indicated that they were prescribed acute medicines

Abbreviations: NSAIDs, non-steroidal anti-inflammatory Drugs

Supplemental Table 2. Demographic and clinical condition variables and definitions

Variable/Question	Definition
<i>Basic Demographics</i>	
Age	18-29 30-39 40-49 50-59 ≥60
Sex	Male Female
Employment Status	Full-time employee Short-time employee Contract employee Part-time job Temporary employee Freelancer Homemaker Self-employed Student Unemployed Retired
Age of diagnosis of migraine by a physician	Continuous: Integer (Disease duration can be calculated by subtracting Age of diagnosis from Age)
Monthly Migraine Days (MMD)	Mean, SD Median 25th percentile, 75th percentile Min, Max
Age at the time you experienced your first migraine	<18 18-29 30-39 40-49

	50-59 ≥60
Age of diagnosis of migraine by a physician	<18 18-29 30-39 40-49 50-59 ≥60
Number of visits to a healthcare facility for migraine in the past year	Mean, SD Median 25 percentile, 75 percentile Min, Max
Sensory disturbances preceding migraines	Yes No
Associated symptoms (e.g., photophobia, sonophobia, osmophobia)	Nausea and/or vomiting Photophobia Sonophobia Osmophobia Decrease in concentration Dizziness Other than above Not applicable
Usage of acute treatment medicine (n, %)	OTCs NSAIDs or acetaminophen Triptan Ditan Others (e.g., Chinese medicine) None of above
Usage of preventive treatment medicine (n, %)	Oral type Injection type Others (e.g., Chinese medicine)

	None of above
Duration of the medication for migraine (month)	Acute OTCs NSAIDS or acetaminophen Triptans Ditans Others (e.g., Chinese medicine) Preventive Oral Injection Others (e.g., Chinese medicine)
Current acute-medicine usage days per month (day)	Mean, SD Median 25 percentile, 75 percentile Min, Max
Treatment Satisfaction with acute treatment medicine	11-point scale from 0 – 10; 0 = Completely dissatisfied; 5 = hard to say either way, 10 = Completely satisfied Mean, SD Median 25 percentile, 75 percentile Min, Max
Treatment Satisfaction with preventive treatment medicine	11-point scale from 0 – 10; 0 = Completely dissatisfied; 5 = hard to say either way, 10 = Completely satisfied Mean, SD Median 25 percentile, 75 percentile Min, Max
Number of visits to a healthcare facility for migraine in the past year	Continuous: Integer (includes 0)

Current acute treatments used including OTCs (Acetaminophen, Aspirin, Acetylsalicylic acid, Ibuprofen, Loxoprofen sodium hydrate)	Categorical: list of drugs
Current OTC usage days per month (Acetaminophen, Aspirin, Acetylsalicylic acid, Ibuprofen, Loxoprofen sodium hydrate)	Continuous: Integer (includes 0)
Current triptan usage days per month (Sumatriptan succinate, Zolmitriptan, Eletriptan hydrobromide, Rizatriptan benzoate, Naratriptan hydrochloride)	Continuous: Integer (includes 0)
Current NSAIDs or acetaminophen usage days per month	Continuous: Integer (includes 0)
Prescription medications currently used for preventive care (Galcanezumab, Fremanezumab, Erenumab)	Categorical: (including none)
On how many days in the last 3 months did you miss family, social or leisure activities because of your headaches?	Continuous: Integer
On how many days in the last 3 months did you have a headache? (If a headache lasted more than 1 day, count each day.)	Continuous: Integer
On a scale of 0 - 10, on average how painful were these headaches? (Where 0=no pain at all, and 10=pain as bad as it can be.)	Scale: 0 - 10
<i>MIDAS</i>	

On how many days in the last 3 months did you miss work or school because of your headaches?	Continuous: Integer
How many days in the last 3 months was your productivity at work or school reduced by half or more because of your headaches? (Do not include days you counted in question 1 where you missed work or school.)	Continuous: Integer
On how many days in the last 3 months did you not do household work (such as housework, home repairs and maintenance, shopping, caring for children and relatives) because of your headaches?	Continuous: Integer
How many days in the last 3 months was your productivity in household work reduced by half or more because of your headaches? (Do not include days you counted in question 3 where you did not do household work.)	Continuous: Integer
On how many days in the last 3 months did you miss family, social or leisure activities because of your headaches?	Continuous: Integer
On how many days in the last 3 months did you have a headache? (If a headache lasted more than 1 day, count each day.)	Continuous: Integer
On a scale of 0 - 10, on average how painful were these headaches? (where 0=no pain at all, and 10=pain as bad as it can be.)	Scale: 0 - 10
<i>MIBS-4</i>	
My headaches affect my work or school at times when I do not	Don't know/NA, Never, Rarely, Some of the time, Much of the time, Most or all of the time

have a headache	
I worry about planning social or leisure activities because I might have a headache	Don't know/NA, Never, Rarely, Some of the time, Much of the time, Most or all of the time
My headaches impact my life at times when I do not have a headache	Don't know/NA, Never, Rarely, Some of the time, Much of the time, Most or all of the time
At times when I do not have a headache, I feel helpless because of my headaches	Don't know/NA, Never, Rarely, Some of the time, Much of the time, Most or all of the time

Abbreviations: MIBS-4, Migraine Interictal Burden Scale; NSAIDs, non-steroidal anti-inflammatory Drugs; OTC, over the counter; SD, standard deviation.

Supplemental Table 3. Relative attribute importance by subgroups

		Method of delivery		Reduction of pain when experiencing a headache		The impact of headache on your daily routines		Can the dosage be adjusted		Temporary side effects		Persistent side effects	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Current acute-medicine usage days per month (OTC)	≤14	52.48	9.94	16.99	6.76	10.59	4.38	3.36	1.86	7.70	3.45	8.89	3.17
	15≤	53.67	10.19	15.27	7.78	9.96	4.58	4.13	2.49	7.59	4.21	9.40	3.07
	0-7	52.78	10.65	16.52	7.49	10.17	4.28	3.71	2.10	7.34	3.55	9.49	3.41
	8-14	52.08	8.85	16.80	7.52	10.54	5.01	3.94	2.20	8.07	3.31	8.57	2.99
	15-23	50.67	10.85	17.66	8.50	9.95	4.82	4.01	2.03	7.95	2.99	9.76	3.62
MMD	24≤	47.52	8.93	20.32	7.26	10.86	4.12	4.45	2.16	7.45	3.13	9.39	3.80
	Preventive and acute	51.71	10.17	16.87	7.58	10.51	4.96	4.02	2.28	7.76	3.48	9.12	3.24
	Acute only	52.04	10.23	17.20	7.89	10.00	4.20	3.70	1.97	7.63	3.28	9.42	3.50
MIBS-4 score	≤4	52.36	9.76	16.68	7.38	10.43	4.10	3.59	1.90	7.75	3.28	9.19	3.42
	5≤	51.62	10.48	17.22	7.97	10.16	4.92	4.06	2.25	7.61	3.43	9.33	3.37
MIDAS score	0-10	52.16	10.11	16.62	7.59	10.29	4.36	3.82	1.99	7.72	3.24	9.39	3.30
	11≤	51.64	10.30	17.45	7.90	10.23	4.87	3.92	2.28	7.62	3.52	9.13	3.48

Abbreviation: MIBS-4, Migraine Interictal Burden Scale; MIDAS, migraine disability assessment; OTC, over the counter; SD, standard deviation