

Factors Influencing Treatment Preference in Patients with Diabetic Macular Edema: A Study Using Conjoint Analysis

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Supplementary materials

Table S1. Proposed attributes and levels for conjoint analysis

Attribute	Amount paid per visit (maximum of 1 visit per month)	Treatment frequency (frequency for 1 year after the treatment is started)	Anticipated post-treatment visual acuity (visual acuity that can be expected after treatment)	Explanation on disease and treatment	Incidence of treatment-related side effects
Level	20,000 Yen	Once every 3 months	0.7	The doctor explains the disease, treatment options and treatment prospects	1 in 100 patients develops some sort of side effect 1 in 500 patients experiences severe vision deterioration
	35,000 Yen	Once every 2 months	0.3	The doctor only explains the treatment option at the time	1 in 50 patients develops some sort of side effect 1 in 200 patients experiences severe vision deterioration
	50,000 Yen	Once every month	0.1	The doctor proposes a treatment without indicating options or prospects	1 in 20 patients develops some sort of side effect 1 in 100 patients experiences severe vision deterioration

Table S2. Patient survey questionnaire

	Attribute information
Q1	Gender
Q2	Place of residence
Q3	Presence of family members living together
Q4	If yes, what family members do you live with?
Q5	Employment
Q6	Education
Q7	Comorbidities (multiple choice)
	Questions of conjoint analysis
Q8	Questions of conjoint analysis
	Situation when diagnosed with diabetes
Q9	When diagnosed with diabetes
Q10	Length of diabetes treatment
	Current eye condition
Q11	Issues related to vision
Q12	Best-corrected visual acuity
	Situation when diagnosed with DME
Q13	When an ophthalmologist was initially consulted
Q14	When diagnosed with DME
Q15	Eye(s) affected by DME
Q16	Understanding of DME or doctor's explanation of it when diagnosed
	DME treatment status
Q17	Continuation status of DME treatment
Q18	Since last treated (those who completed or discontinued treatment)
Q19	Type of hospital
Q20	Time it takes to get to hospital (one way)
Q21	Main way of getting to hospital
Q22	Presence of person who accompanies you to the hospital
Q23	Frequency of hospital visits
Q24	Therapeutic strategy
Q25	DME treatment duration
Q26	Frequency of visits to ophthalmologist
Q27	Frequency of injections (for "patients with anti-VEGF treatment experience")
Q28	Out-of-pocket payment per month
Q29	Out-of-pocket rate of public health insurance
Q30	Relationship with the attending ophthalmologist
Q31	Current understanding of DME treatment
Q32	Satisfaction with treatment
Q33	Do you evaluate an improvement in edema found by an imaging test (retinal tomography image) as a therapeutic effect?
Q34	Current understanding of DME

DME, diabetic macular edema; VEGF, vascular endothelial growth factor.

Table S3. Overall patient characteristics

	Overall n (%)	Patients with anti-VEGF treatment experience n (%)	Patients without anti-VEGF treatment experience n (%)	Adherent patients n (%)	Non-adherent patients n (%)
N	237	90	147	201	36
Sex					
Male	203 (85.7%)	74 (82.2%)	129 (87.8%)	172 (85.6%)	31 (86.1%)
Female	34 (14.3%)	16 (17.8%)	18 (12.2%)	31 (86.1%)	5 (13.9%)
Age, years					
20-49	37 (15.6%)	19 (21.1%)	18 (12.2%)	31 (15.4%)	6 (16.7%)
50-59	84 (35.4%)	26 (28.9%)	58 (39.5%)	70 (34.8%)	14 (38.9%)
60-69	70 (29.5%)	29 (32.2%)	41 (27.9%)	58 (28.9%)	12 (33.3%)
70-79	46 (19.4%)	16 (17.8%)	30 (20.4%)	42 (20.9%)	4 (11.1%)
Living with family					
Yes	195 (82.3%)	70 (77.8%)	125 (85.0%)	165 (82.1%)	30 (83.3%)
No	42 (17.7%)	20 (22.2%)	22 (15.0%)	36 (17.9%)	6 (16.7)
Family member					
Spouse/partner	160 (67.5%)	56 (80.0%)	104 (83.2%)	135 (81.8%)	25 (83.3%)
Children	68 (28.7%)	22 (31.4%)	46 (36.8%)	59 (35.8%)	9 (30.0%)
Other	44 (18.6%)	18 (25.7%)	26 (20.8%)	37 (22.4%)	7 (23.3%)
Employment					
Yes	164 (69.2%)	63 (70.0%)	101 (68.7%)	139 (69.2%)	25 (69.4%)
No	73 (30.8%)	27 (30.0%)	46 (31.3%)	62 (30.8%)	11 (30.6%)
Comorbidity					

Glaucoma	40 (16.9%)	23 (25.6%)	17 (11.6%)	34 (16.9%)	6 (16.7%)
Cataract	43 (18.1%)	16 (17.8%)	27 (18.4%)	36 (17.9%)	7 (19.4%)
Stroke	13 (5.5%)	4 (4.4%)	9 (6.1%)	11 (5.5%)	2 (5.6%)
Heart disease	21 (8.9%)	8 (8.9%)	13 (8.8%)	19 (9.5%)	2 (5.6%)
Diabetes	237 (100%)	90 (100%)	147 (100%)	201 (100%)	36 (100%)
Hypertension	115 (48.5%)	46 (51.1%)	69 (46.9%)	100 (49.8%)	15 (41.7%)
Hyperlipidemia	58 (24.5%)	23 (25.6%)	35 (23.8%)	54 (26.9%)	4 (11.1%)
Cancer (malignant tumor)	11 (4.6%)	2 (2.2%)	9 (6.1%)	10 (5.0%)	1 (2.8%)
Other	23 (9.7%)	11 (12.2%)	12 (8.2%)	22 (10.9%)	1 (2.8%)
None	NA	NA	NA	NA	NA
Corrected visual acuity of the affected eye					
0.01-0.1	46 (19.4%)	20 (22.2%)	26 (17.7%)	41 (20.4%)	5 (13.9%)
0.2-0.3	42 (17.7%)	15 (16.7%)	27 (18.4%)	36 (17.9%)	6 (16.7%)
0.4-0.6	47 (19.8%)	24 (26.7%)	23 (15.6%)	38 (18.9%)	9 (25.0%)
0.7-1.0	74 (31.2%)	23 (25.6%)	51 (34.7%)	66 (32.8%)	8 (22.2%)
1.2-	12 (5.1%)	3 (3.3%)	9 (6.1%)	10 (5.0%)	2 (5.6%)
Unknown	16 (6.8%)	5 (5.6%)	11 (7.5%)	10 (5.0%)	6 (16.7%)

VEGF, vascular endothelial growth factor, N, total number of respondents; n, number of samples analyzed; NA, not available.

Table S4. Patient characteristics by visual acuity category

	0.3 and under n (%)	0.4 to 0.6 n (%)	0.7 and over n (%)
N	88	47	86
Sex			
Male	70 (79.5%)	41 (87.2%)	80 (93.0%)
Female	18 (20.5%)	6 (12.8%)	6 (7.0%)
Age, years			
20-49	12 (13.6%)	7 (14.9%)	12 (14.0%)
50-59	27 (30.7%)	19 (40.4%)	26 (30.2%)
60-69	21 (23.9%)	11 (23.4%)	31 (36.0%)
70-79	18 (20.5%)	10 (21.3%)	17 (19.8%)
Living with family			
Yes	70 (79.5%)	39 (83.0%)	73 (84.9%)
No	18 (20.5%)	8 (17.0%)	13 (15.1%)
Family member			
Spouse/partner	59 (67.0%)	33 (70.2%)	60 (69.8%)
Children	28 (31.8%)	17 (36.2%)	21 (24.4%)
Other	10 (11.4%)	8 (17.0%)	21 (24.4%)
Employment			
Yes	60 (68.2%)	36 (76.6%)	59 (68.6%)
No	28 (31.8%)	11 (23.4%)	27 (31.4%)
Comorbidity			
Glaucoma	15 (17.0%)	12 (25.5%)	12 (14.0%)
Cataract	21 (23.9%)	10 (21.3%)	11 (12.8%)
Stroke	4 (4.5%)	6 (12.8%)	3 (3.5%)
Heart disease	10 (11.4%)	1 (2.1%)	10 (11.6%)
Diabetes	88 (100%)	47 (100%)	86 (100%)
Hypertension	49 (55.7%)	24 (51.1%)	39 (45.3%)
Hyperlipidemia	19 (21.6%)	12 (25.5%)	25 (29.1%)
Cancer (malignant tumor)	4 (4.5%)	2 (4.3%)	4 (4.7%)
Other	10 (11.4%)	6 (12.8%)	7 (8.1%)
None	NA	NA	NA

N, total number of respondents; n, number of samples analyzed; NA, not available.

Table S5. EQ-5D-5L index values in patients with or without anti-VEGF treatment experience (secondary endpoint)

	Patients with anti-VEGF treatment experience	Patients without anti-VEGF treatment experience
n	90	147
Average	0.785	0.825
Standard deviation	0.17	0.15
Minimum	0.3	0.4
Maximum	1.0	1.0
Median	0.8	0.8
First quantile	0.7	0.7
Third quantile	1.0	1.0
Interquartile range	0.3	0.3
Lower limit	0.7	0.8
Upper limit	0.8	0.9

n, number of samples analyzed; VEGF, vascular endothelial growth factor; EQ-5D-5L, EuroQoL 5 dimension 5 level.

Table S6. EQ-VAS scores in patients with and without anti-VEGF treatment experience (secondary endpoint)

	Patients with anti-VEGF treatment experience	Patients without anti-VEGF treatment experience
n	90	147
Average	65.3	67.4
Standard deviation	19.57	19.82
Minimum	20.0	21.0
Maximum	100.0	100.0
Median	67.5	74.0
First quantile	50.0	50.0
Third quantile	80.8	81.0
Interquartile range	30.8	31.0
Lower limit	61.2	64.1
Upper limit	69.4	70.6

n, number of samples analyzed; VEGF, vascular endothelial growth factor; EQ-VAS, EQ visual analog scale.

Table S7. PAM-13 scores in patients with and without anti-VEGF treatment experience (secondary endpoint)

	Patients with anti-VEGF treatment experience	Patients without anti-VEGF treatment experience
n	90	140
Average	55.2	51.7
Standard deviation	16.73	14.23
Minimum	35.5	17.9
Maximum	100.0	100.0
Median	51.0	48.9
First quantile	43.7	43.3
Third quantile	62.5	58.1
Interquartile range	18.8	14.8
Lower limit	51.7	49.3
Upper limit	58.7	54.1

n, number of samples analyzed; PAM-13, patient activation measure 13; VEGF, vascular endothelial growth factor.