

Patient Preferences in the Management of Wet Age-Related Macular Degeneration: A Conjoint Analysis

POSB431

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INTRODUCTION

- Age-related macular degeneration (AMD) is responsible for ~6.6% of all blindness cases, 80-90% of which is due to wet AMD [1].
- Anti-VEGF agents are the standard of care for patients with wet AMD due to their therapeutic benefit [2-5]. However, in real-world practice, non-adherence to anti-VEGF therapy poses significant challenges in the effective management of wet AMD [6].
- Understanding patient preferences may help in overcoming challenges in effective management of wet AMD including improvement in adherence to treatment, patient outcomes and care experience with optimal patient activation [7].
- This study aimed to identify a) patient preference drivers on disease and treatment attributes, b) level of patient engagement through a patient activation measure (PAM).

METHODS

- This cross-sectional, non-interventional study employed: a) self-explicated conjoint survey; b) PAM-13 questionnaire (level 4: maintaining behaviors and pushing further; level 3: taking action and gaining control; level 2: becoming aware but still struggling; level 1: disengaged and overwhelmed).
- The study included patients with self-reported wet AMD; patients ≥50 years of age, and patients who had received at least one intravitreal anti-VEGF injection for wet AMD in the past 6-12 months.
- This online survey questionnaire aimed to collect demographic characteristics, laterality of the disease, treatments received, and treatment setting related data (**Figure 1**).

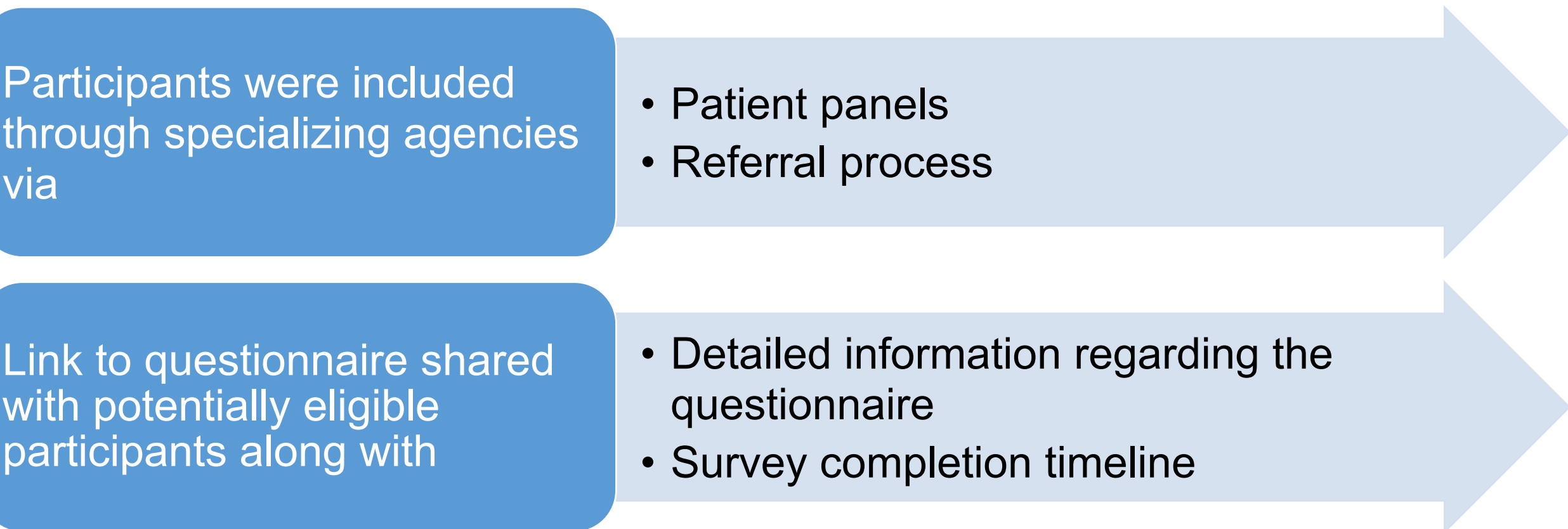


Figure 1: Survey methodology

- Survey questionnaire consisted of six domains, with a total of 21 attributes (**Table 1**). Impact of each domain and respective attribute were analyzed at different levels, including global, country, gender, and disease laterality.
- Domains and attributes were ranked based on utility scores under each domain. Domains were determined based on targeted literature review, social media listening, and discussions with clinical experts and patient group representatives.
- Validation of key domains/areas of importance driving patient treatment preferences were explored using telephone in-depth interviews.
- For a sample size of >20, standard error was estimated to be <5% using the self-explicated conjoint approach. A sample size of at least 40 patients per country was used to provide added confidence in results.

Table 1: Domains and respective attributes studied in survey

Domains	Attributes	
Treatment effects on vision	On symptoms Time to treatment effect	Time to re-administration
Vision related symptom burden	Clarity of vision	Quality of vision
Burden of hospital/clinic visits	Burden from type of treatment administration Burden from frequency of visits	Burden associated with treatment administrator Burden of changing treatment team Burden of treatment location
Risk of treatment related adverse events	Risk of damage to the eye Risk of major side effects	Approval from national health authorities
Impact on daily activities	Impact on work Impact on screen-based activities	Impact on hobbies Impact on independence
Impact on psychological well-being	Impact on emotional well-being	Worry about future health and well-being Worry about financial well-being

RESULTS

- Overall, the study included 466 participants (mean age: 68 years; women: 54%) and in majority (72%) of the participants, unilateral vision was affected.
- The duration of anti-VEGF treatment in participants with wet AMD was 3.9 ± 10 years (mean ± SD). Participants received ranibizumab (37%), aflibercept (33%), bevacizumab (23%), or other anti-VEGF agents (7%).

Overall domain preferences

- Treatment effects, vision-related symptom burden, and risk of treatment related issues were the most important domains across all subgroups.
- Country specific analysis highlighted different domains being most important (Germany: psychological burden; USA and France: impact on daily activities, vision related symptom burden, and treatment effects; Canada and Australia: burden of hospital visit).

Treatment effect attribute

- ‘Treatment effect on symptoms’ was the most important attribute across all the countries, both genders, and disease laterality (**Table 2**).

Table 2: Treatment effects attributes, ranked by countries

Country	Rank 1	Rank 2	Rank 3
Global	T.E.S.	T.T.E.	T.R.
Australia	T.E.S.*	T.T.E.	T.R.
Canada	T.E.S.	T.T.E.	T.R.
France	T.E.S.*	T.T.E.	T.R.
Germany	T.E.S.	T.T.E.	T.R.
Italy	T.E.S.	T.T.E.	T.R.
Japan	T.E.S.	T.T.E.*	T.R.
Spain	T.E.S.	T.T.E.	T.R.
Taiwan	T.E.S.	T.T.E.	T.R.
UK	T.E.S.*	T.T.E.	T.R.
USA	T.E.S.	T.T.E.*	T.R.

*non-significant compared to next ranked attribute; T.E.S: treatment effects on symptoms; T.T.E: time to treatment effect; T.R.: time to re-admission

Vision related symptom burden

- ‘Clarity of vision’ was a significant attribute in Australia, Canada, Japan, Taiwan, the UK, and the USA, both genders and disease laterality and ‘quality of vision’ was a significant attribute across all countries.

Burden of clinic or hospital visits

- Participants across all the countries ranked the ‘treatment location’ to be the most important attribute within this domain.
- ‘Frequency of visits to clinics/hospitals’ was one of the most significant attributes within this domain across most included countries, both genders, and disease laterality. Among participants of Japan, ‘type of treatment administration’ was the most important attribute (**Table 3**).

Table 3: Ranking of attribute importance for aggregated global results vs. country results

Country	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Global	F.V.	T.T.	C.T.T	T.A.	T.L.
Australia	F.V.*	T.T.	C.T.T.*	T.A.*	T.L.
Canada	F.V.*	T.T.	C.T.T.*	T.A.	T.L.
France	T.A.*	F.V.*	T.T.*	C.T.T.	T.L.
Germany	C.T.T.	F.V.*	T.T.*	T.A.*	T.L.
Italy	F.V.*	T.T.*	T.A.*	C.T.T.	T.L.
Japan	T.T.*	F.V.	C.T.T.*	T.A.	T.L.
Spain	F.V.*	T.T.	T.A.	C.T.T.*	T.L.
Taiwan	F.V.*	C.T.T.*	T.T.*	T.A.	T.L.
UK	F.V.	C.T.T.*	T.T.*	T.A.*	T.L.
USA	F.V.*	C.T.T.*	T.T.*	T.A.	T.L.

*non-significant compared to next ranked attribute; C.T.T.: Change in treatment team; F.V.: frequency of visits; T.A.: treatment administrator; T.L.: Treatment location; T.T.: type of treatment

Risk of treatment related safety and tolerability issues

- ‘Risk of eye damage’ was the most troublesome attribute, globally, across both genders and disease laterality. In France, ‘risk of major side effects immediately after treatment’ was an important attribute.
- Participants in Japan, Germany and Spain perceived the ‘risk of minor side effects immediately during/after treatment’ to be significant.

Impact of wet AMD on daily activities

- Participants across all the countries, both genders, and disease laterality ranked ‘impact on work’ as the most significant attribute.

Table 4: Impact of wet AMD on daily activities: Global vs country specific

Country	Rank 1	Rank 2	Rank 3	Rank 4
Global	I.W.*	I.S.A.*	I.I.	I.H.
Australia	I.W.*	I.S.A.	I.I.	I.H.
Canada	I.W.*	I.S.A.	I.I.	I.H.
France	I.W.*	I.S.A.*	I.I.	I.H.
Germany	I.W.*	I.S.A.*	I.I.	I.H.
Italy	I.W.*	I.S.A.*	I.I.*	I.H.
Japan	I.W.*	I.S.A.*	I.I.*	I.H.
Spain	I.W.	I.S.A.*	I.I.*	I.H.
Taiwan	I.W.	I.S.A.	I.I.*	I.H.
UK	I.W.*	I.S.A.*	I.I.*	I.H.
USA	I.W.*	I.S.A.	I.I.*	I.H.

*non-significant compared to next ranked attribute; I.H.: impact on hobbies; I.I.: impact on independence; I.S.A: impact on screen-based activities; I.W.: Impact on work

- Difference between ‘impact on work’ vs. ‘impact on screen-based activities’, and ‘impact on screen activities’ vs. ‘impact on independence’ was not significant across most countries (**Table 4**).

Impact of wet AMD on psychological well-being

- ‘Worry about future health and well-being’ was the most important attributes globally, and across both genders, and disease laterality.

Patient activation measure (PAM)

- Patient activation showed that a considerable proportion of participants were at level 3 (47.59%), followed by level 1 (25.44%), level 2 (17.11%), and level 4 (10.09%) PAM globally.

LIMITATIONS

- Only individuals willing to participate were included, thus; perceptions of those who were not willing to participate was not captured.
- Use of convenience sampling via patient group / doctoral referral may have presented selection bias, in relation to patient activation status.
- Participants with high impairment in both eyes were less likely to participate, resulting in inclusion of mild-moderate AMD only.

CONCLUSION

- Optimizing the treatment according to patient preference may bring an improvement in treatment outcomes and treatment adherence.
- Participants considered treatment effect on symptoms, clarity of vision, treatment center location, frequency of visits, risk of eye damage, anxiety about future health and wellbeing, and impact of wet AMD on work as the most important attributes.
- Using relevant preference drivers identified through robust qualitative methods provided a clarity regarding important attributes.
- Most participants showed high PAM-13 scores showing better awareness regarding the key facts and willingness to adopt practices desired outcomes.

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