

# The Burden of Treatment with Anti-Vascular Endothelial Growth Factor Injection on Patients and Health Care Professionals: A Qualitative Study

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## Disclosures:

Quan Dong Nguyen is a Scientific Advisory Board member for Bausch + Lomb, Inc., Genentech, and Regeneron Pharmaceuticals, Inc. Andrew A Moshfeghi reports serving as a consultant to Alcon Inc., Ainsly Ltd/Waldo Inc., Annexon Therapeutics, Inc., Apellis Inc., Bausch + Lomb, Inc., Ocular Therapeutix, Pr3vent, and Valitor, Inc.; and ownership interest in Ainsly Ltd/Waldo Inc., Ocular Therapeutix, and Pr3vent. Steven Sherman, William B Nowell, April McCullough, Diana Rofail, and Todd Estus are employees and stockholders of Regeneron Pharmaceuticals, Inc. Dan Wolin and Laurin Jackson are employees of RTI Health Solutions. Nimesh Patel has served as an advisor for Alcon Inc., Alimera, Allergan, Apellis Inc., Biogen, Dorc, EyePoint, Genentech, Kyoto Drug Company, Regeneron Pharmaceuticals, Inc., and RegenxBio.

This study was funded by Regeneron Pharmaceuticals, Inc. (Tarrytown, New York). The sponsor participated in the design and conduct of the study, analysis of the data, and preparation of this presentation. Medical writing support was provided by Linda Brown, BSc (Hons), and editorial support was provided by Jess Fawcett, BSc, of Core (a division of Prime, London, UK), in accordance with Good Publication Practice guidelines, and funded by Regeneron Pharmaceuticals, Inc. (Tarrytown, New York).

**Presented at EURETINA, September 4–7, 2025**

# Background, Objective, and Methods

## Background

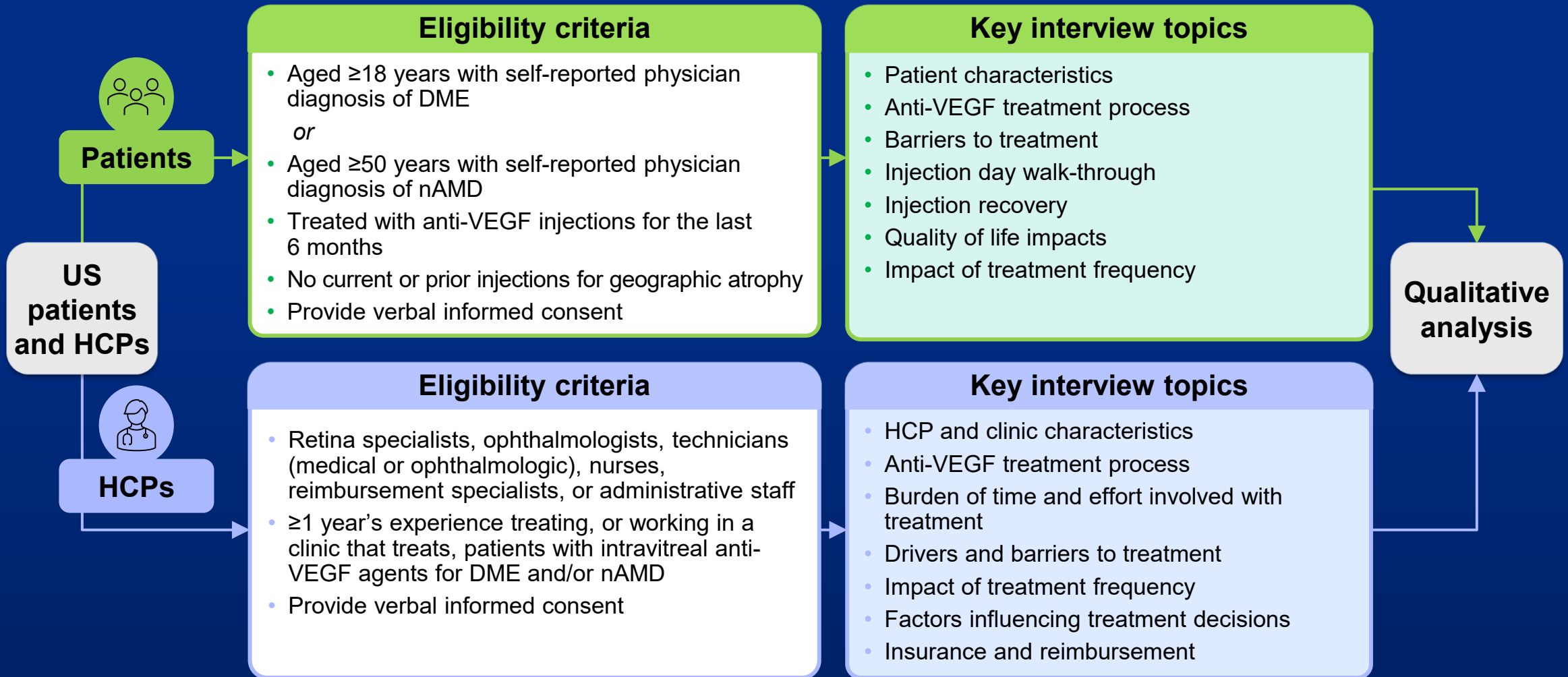
- An enhanced understanding of the current burden of intravitreal anti-VEGF treatment is needed to identify opportunities to:
  - Minimize treatment burden on patients
  - Improve efficiencies for HCPs who work in ophthalmology or retina clinics

**Objective: Semi-structured interviews were conducted in the context of a cross-sectional study, to assess the burden of treatment with anti-VEGF injections on both patients and HCPs and to inform development of a forthcoming survey**

## Methods

- This US study included:
  - Patients receiving anti-VEGF treatment for DME or nAMD
  - HCPs managing or treating patients with DME or nAMD with anti-VEGFs, including physicians administering anti-VEGFs and supporting staff
- Participants represented a range of patient and HCP perspectives
- Participants were interviewed virtually by 2 experienced interviewers using a semi-structured interview guide; each interview lasted ~1 hour
- All participants provided verbal consent (recorded electronically) before the interview start

# Eligibility Criteria and Key Interview Topics

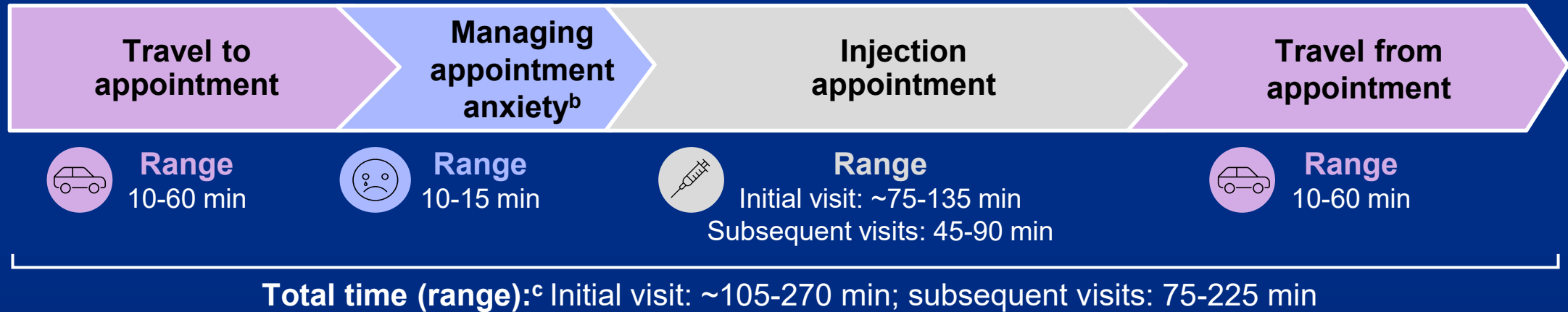


# Participant Characteristics

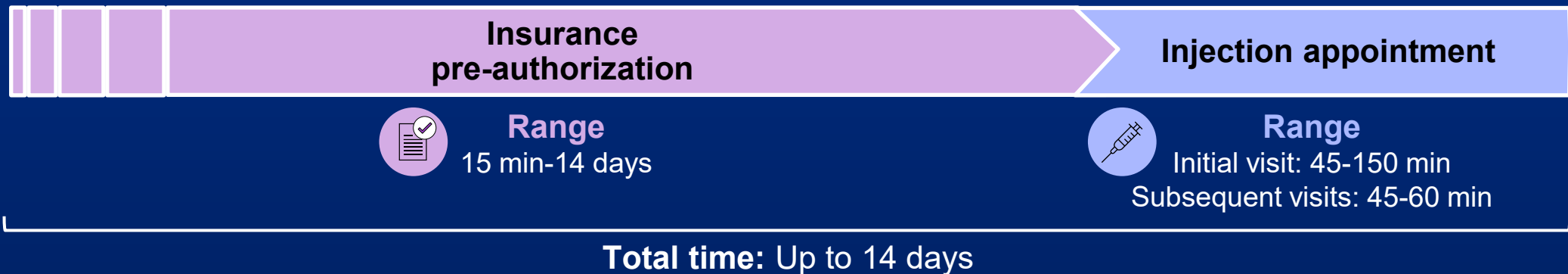
Patients		HCPs	
N=10		N=13	
Age, mean (SD), years	56.1 (6.3)	HCP type, n (%)	
Male, n (%)	6 (60)	Retina specialist	5 (38.5)
Race, n (%)		Ophthalmologist	2 (15.4)
White	8 (80)	Reimbursement specialist	3 (23.1)
Black or African American	1 (10)	Practice manager	2 (15.4)
Middle Eastern and/or North African	1 (10)	Ophthalmology technician	1 (7.7)
Highest education level, n (%)		Type of practice, n (%)	
Some college education	1 (10)	Multispecialty ophthalmology clinic	6 (46.1)
College degree	5 (50)	Retina specialty clinic	7 (53.9)
Some graduate school education but no degree	1 (10)		
Professional or advanced degree	3 (30)	Years in practice, mean (SD)	16.8 (7.6)
Diagnosis, n (%)		Number of anti-VEGF patients seen in a typical week, mean (SD)	183 (139.6)
DME	3 (30)	Average percentage of anti-VEGF patients treated for DME, mean (SD)	20.1 (2.1)
nAMD	6 (60)	Average percentage of anti-VEGF patients treated for nAMD, mean (SD)	20.6 (1.9)
DME and nAMD	1 (10)	US region of practice, n (%)	
Time since diagnosis, n (%)		Northeast	5 (38.5)
6 months to 1 year	1 (10)	Midwest	3 (23.1)
>1 year	9 (90)	South	1 (7.7)
Eyes affected, n (%)		West	4 (30.8)
Bilateral disease	4 (40)		
Unilateral disease	4 (40)		
Did not specify	2 (20)		

# Time Burden of Injection Appointments

## Patients<sup>a</sup>



## HCPs



<sup>a</sup>Based on responses from 10 patients. <sup>b</sup>Reported by 6 patients (60%). <sup>c</sup>Includes time taken to manage anxiety (10-15 min), although it was not required by 4 (40%) patients.

# Patient Burden of Appointments and Requirements for Help Traveling To or From Appointments

## Burden of appointments

Appointments are a burden: **40%**

Mainly due to wait and travel times



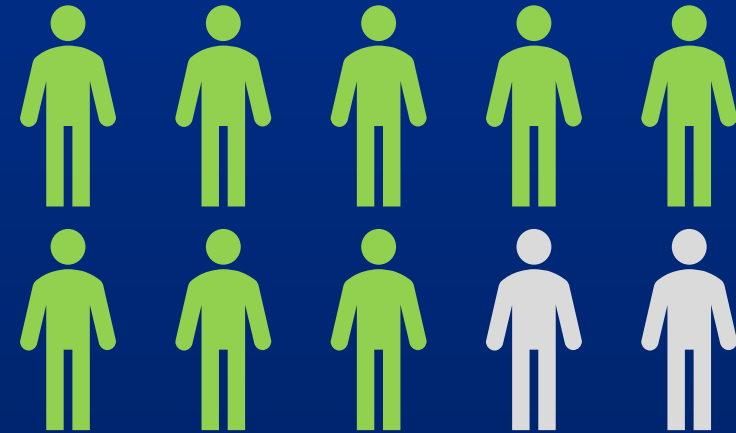
Appointments are not a burden: **60%**

Patients understood the necessity of appointments to improve vision or delay disease progression

## Help needed to get to or from appointments

Help required: **80%**






(Half of these patients found it difficult to ask for help)



No help required: **20%**

# Impact of a Reduction in Injection Frequency

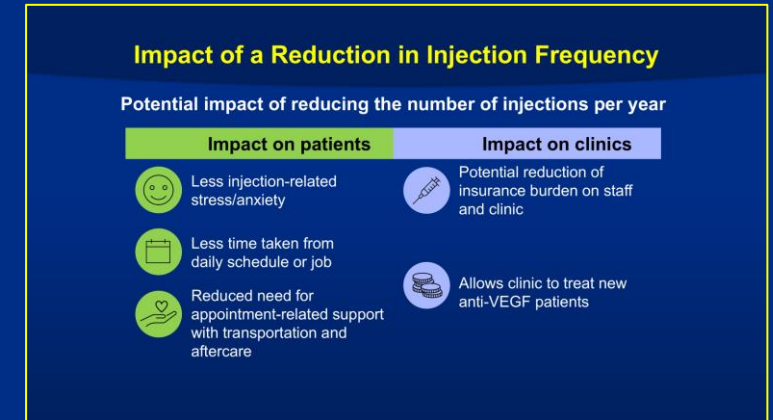
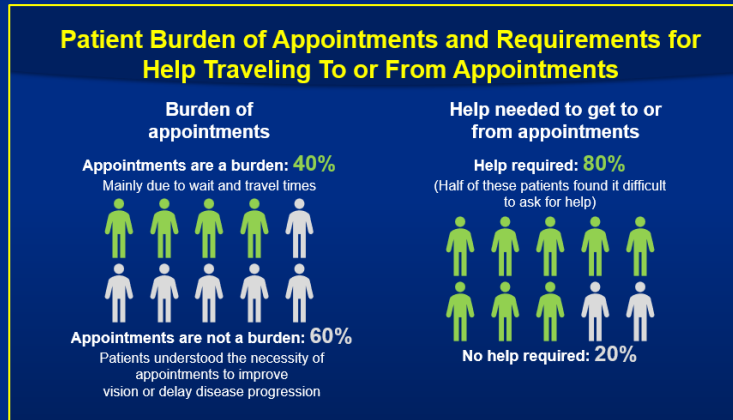
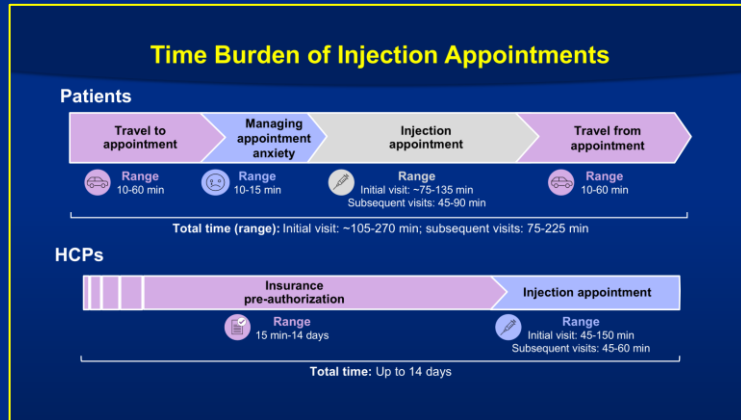
## Potential impact of reducing the number of injections per year

Impact on patients <sup>a</sup>	Impact on clinics <sup>b</sup>
 Less injection-related stress/anxiety	 Potential reduction of insurance burden on staff and clinic
 Less time taken from daily schedule or job	
 Reduced need for appointment-related support with transportation and aftercare	 Allows clinic to treat new anti-VEGF patients

<sup>a</sup>Impact of fewer injections per year (responses from 10 patients).

<sup>b</sup>Impact of reducing frequency by 1 injection per year (responses from 6 HCPs).

# Conclusions



- Patient anxiety about the injection procedure and HCP challenges with insurance were the largest burdens related to treatment with intravitreal anti-VEGF agents, based on the interviews conducted
- All patients and most HCPs indicated that they would prefer fewer injections per year than for their current anti-VEGF injection schedule
- These preliminary results will support the development of a quantitative survey to assess the burden of anti-VEGF treatment in larger patient and HCP populations