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

- 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
- Quan Dong Nguyen is a Scientific Advisory Board member for Bausch + Lomb, Inc., Genentech, and Regeneron Pharmaceuticals, Inc.
- 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
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Background and Objectives

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

Semi-structured interviews were conducted to assess the burden of treatment with anti-VEGF injections on both patients and HCPs and to inform development of a forthcoming survey

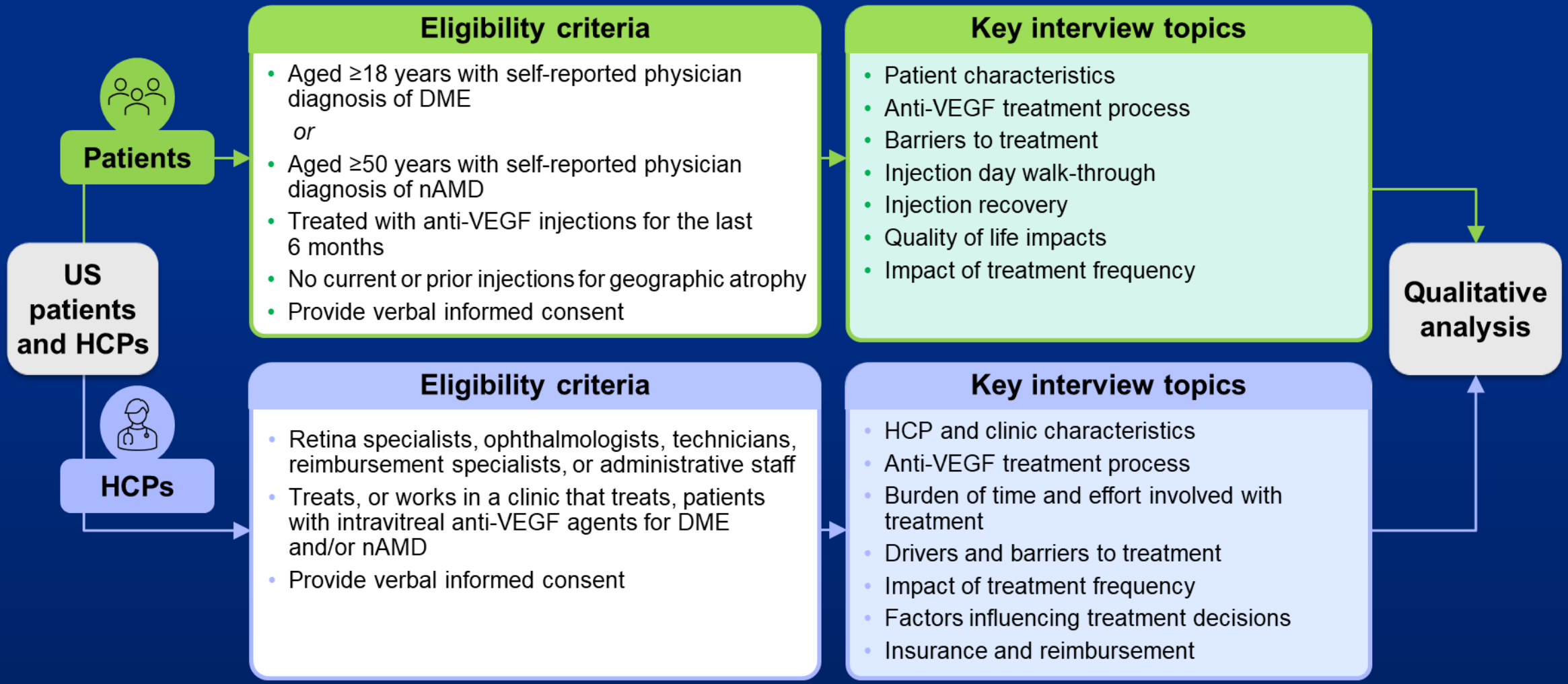
HCP, health care professional; VEGF, vascular endothelial growth factor.

Methods

- This US study included:
  - Patients receiving treatment with anti-VEGF injections for DME or nAMD
  - HCPs managing or treating patients with DME or nAMD with anti-VEGF injections, including physicians administering anti-VEGF agents as well as supporting staff
- Participants were selected to best represent a range of patient and HCP perspectives relevant to anti-VEGF treatment in the US
- Participants were interviewed virtually by 2 experienced interviewers using a semi-structured interview guide. Each interview lasted ~1 hour
- All participants provided their verbal consent before the start of the interviews and consent was recorded electronically
- No formal thematic coding was conducted

DME, diabetic macular edema; nAMD, neovascular age-related macular degeneration.

Eligibility Criteria and Key Interview Topics

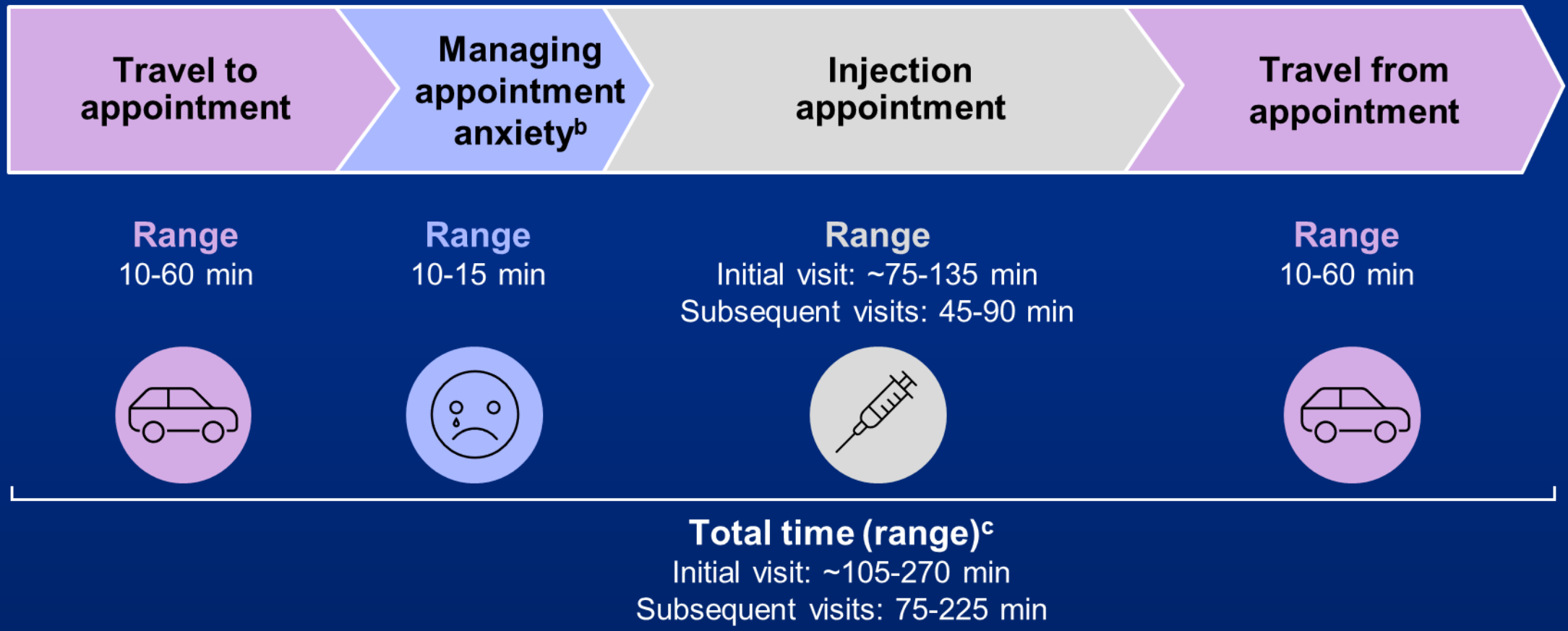


Participant Characteristics

Patients	N=10
Age, mean (SD), years	56.1 (6.3)
Male, n (%)	6 (60)
Race, n (%)	
White	8 (80)
Black or African American	1 (10)
Middle Eastern and/or North African	1 (10)
Highest education level, n (%)	
Some college education	1 (10)
College degree	5 (50)
Some graduate school education but no degree	1 (10)
Professional or advanced degree	3 (30)
Diagnosis, n (%)	
DME	3 (30)
nAMD	6 (60)
DME and nAMD	1 (10)
Time since diagnosis, n (%)	
6 months to 1 year	1 (10)
>1 year	9 (90)
Eyes affected, n (%)	
Bilateral disease	4 (40)
Unilateral disease	4 (40)
Did not specify	2 (20)

HCPs	N=13
HCP type, n (%)	
Retina specialist	5 (38.5)
Ophthalmologist	2 (15.4)
Reimbursement specialist	3 (23.1)
Practice manager	2 (15.4)
Ophthalmology technician	1 (7.7)
Type of practice, n (%)	
Multispecialty ophthalmology clinic	6 (46.1)
Retina specialty clinic	7 (53.9)
Years in practice, mean (SD)	16.8 (7.6)
Number of anti-VEGF patients seen in a typical week, mean (SD)	183 (139.6)
Average percentage of anti-VEGF patients treated for DME, mean (SD)	20.1 (2.1)
Average percentage of anti-VEGF patients treated for nAMD, mean (SD)	20.6 (1.9)
US region of practice, n (%)	
Northeast	5 (38.5)
Midwest	3 (23.1)
South	1 (7.7)
West	4 (30.8)

Time Burden of Injection Appointments for Patients[a]



[a]Based on responses from 10 patients. [b]Reported by 6 patients (60%). [c]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

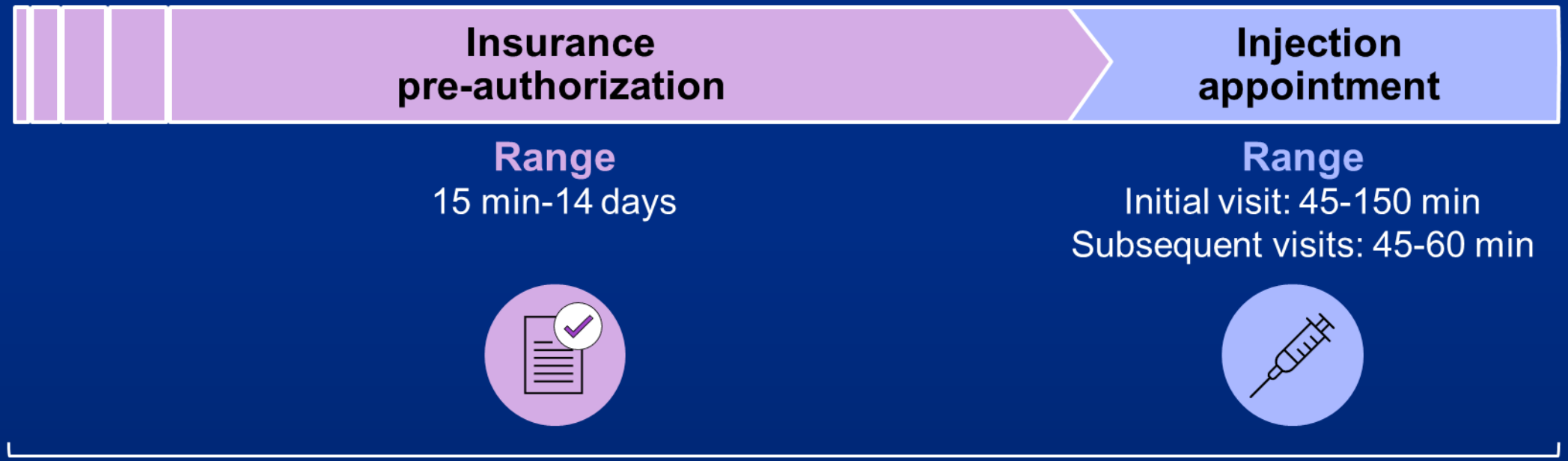
Help needed to get to or from appointments

Help required: 80%

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

No help required: 20%

Time Burden of Injection Appointments for HCPs



Total time:
Up to 14 days

Impact of a Reduction in Injection Frequency

Potential impact of reducing the number of injections per year

Impact on patients[a]

Less stress/anxiety

Less time taken from schedule or job

Reduced need for appointment-related support with transportation and aftercare

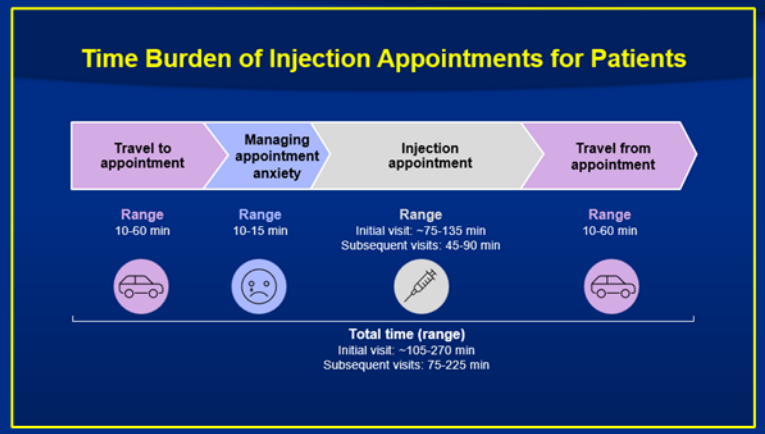
Impact on clinics[b]

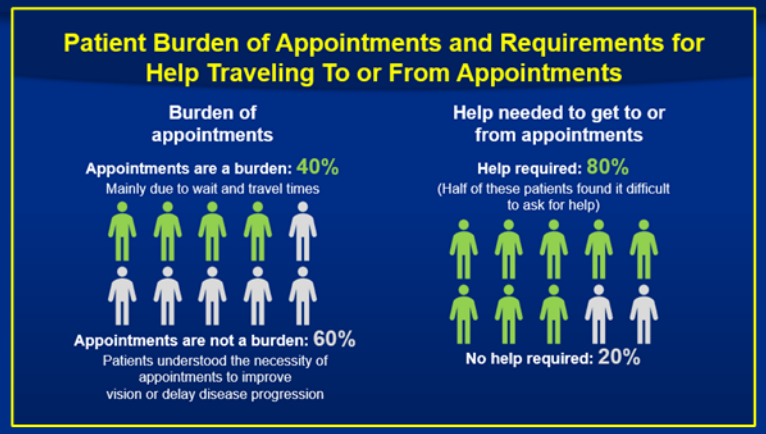
Reduction of injection burden on staff and clinic

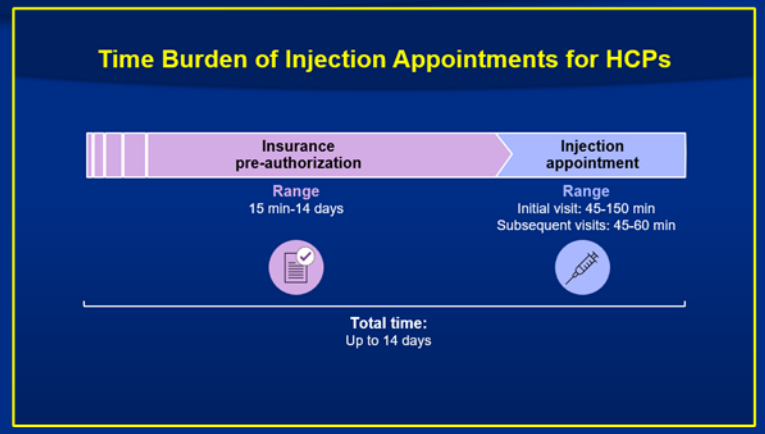
Allows clinic to treat new anti-VEGF patients

[a]Impact of fewer injections per year (responses from 10 patients).
[b]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 inform the development of a quantitative survey to assess the burden of anti-VEGF treatment in larger patient and HCP populations