

# Outcomes with Intravitreal Anti-VEGF Therapy for Neovascular AMD and DME in Routine Clinical Practice

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## OBJECTIVE

- To evaluate visual acuity (VA) outcomes following treatment of neovascular age-related macular degeneration (AMD) and diabetic macular edema (DME) with intravitreal anti-vascular endothelial growth factor (VEGF) agents in routine clinical practice through 2 years

## METHODS

- Electronic medical record data collected from 251 Retina Specialists for patients with:
  - Neovascular AMD
  - DME
- Anti-VEGF treatment naïve eyes
  - 1st anti-VEGF injection between January 1st, 2012 and April 30th, 2015
- Two subgroups evaluated:
  - Group 1: ≤6 injections/year
  - Group 2: ≥7 injections/year

## RESULTS

### OUTCOMES IN NEOVASCULAR AMD

Figure 1. Patient Selection at Year 1 and 2

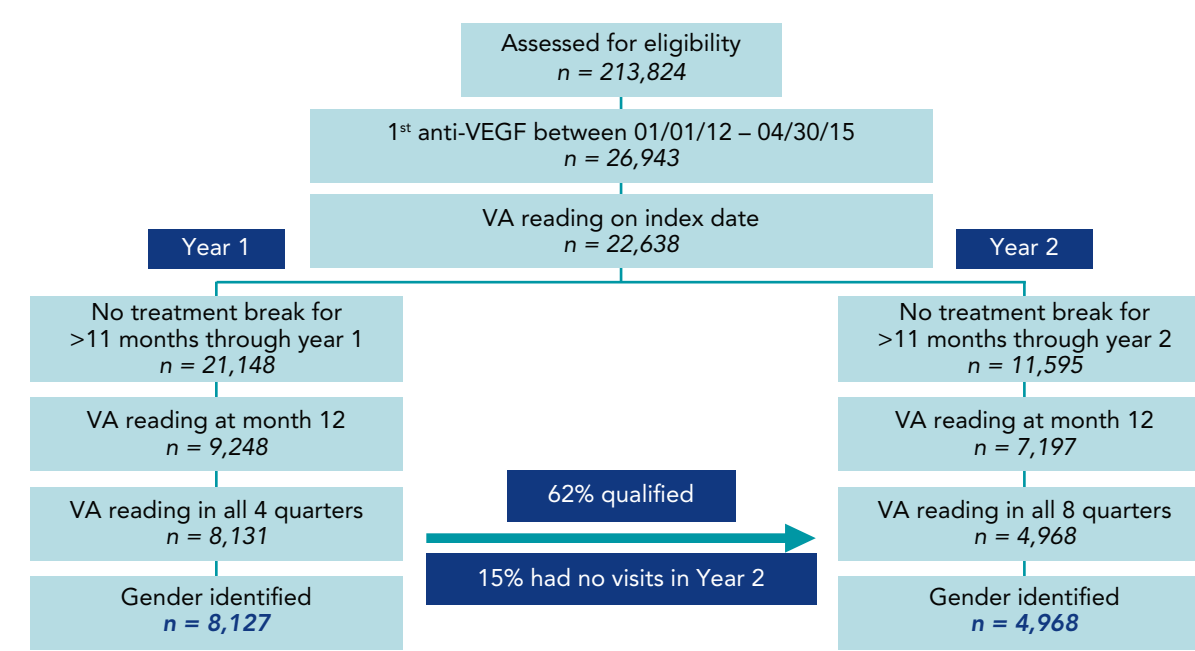


Figure 3. Mean VA by Injection Subgroups Through Year 1

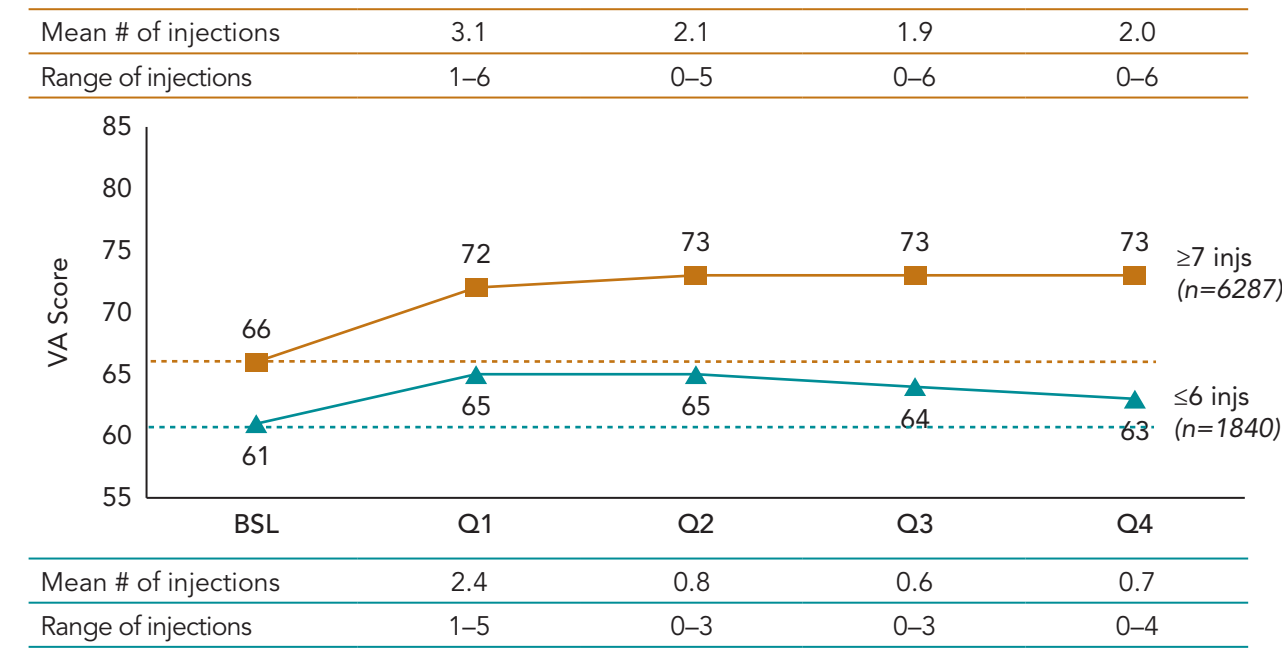
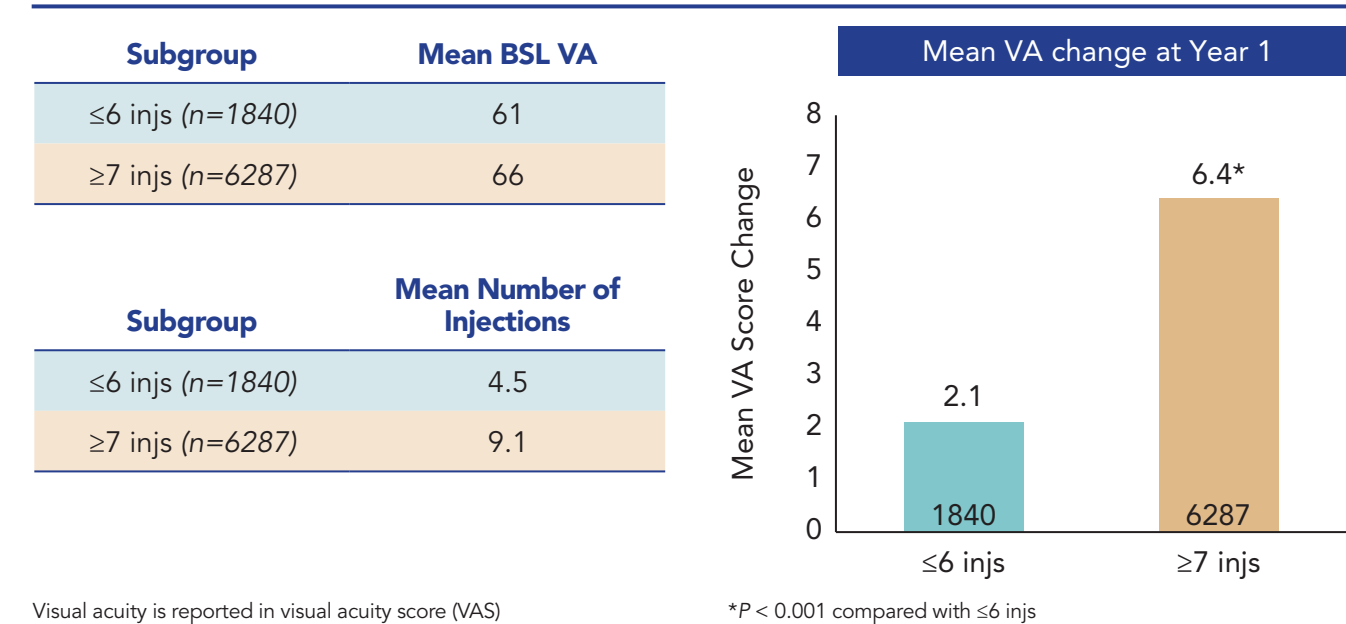


Table 1. Baseline Characteristics

	Total (n=8127)	≤6 injections (n=1840)	≥7 injections (n=6287)
Mean Age, years	80	80	80
Female, %	64%	63%	65%
Mean VA, letters	65	61	66
Median VA, letters	74	72	74
VA Subgroups			
≥20/40	21.7%	23.4%	21.2%
<20/40 – 20/100	46.7%	39.4%	48.8%
<20/100 – 20/200	14.6%	13.3%	15.0%
<20/200	17.0%	23.9%	15.0%

Patients included in Year 1 analysis

Figure 2. Mean VA Change by Injection Subgroups at Year 1



Visual acuity is reported in visual acuity score (VAS)

\*P < 0.001 compared with ≤6 injs

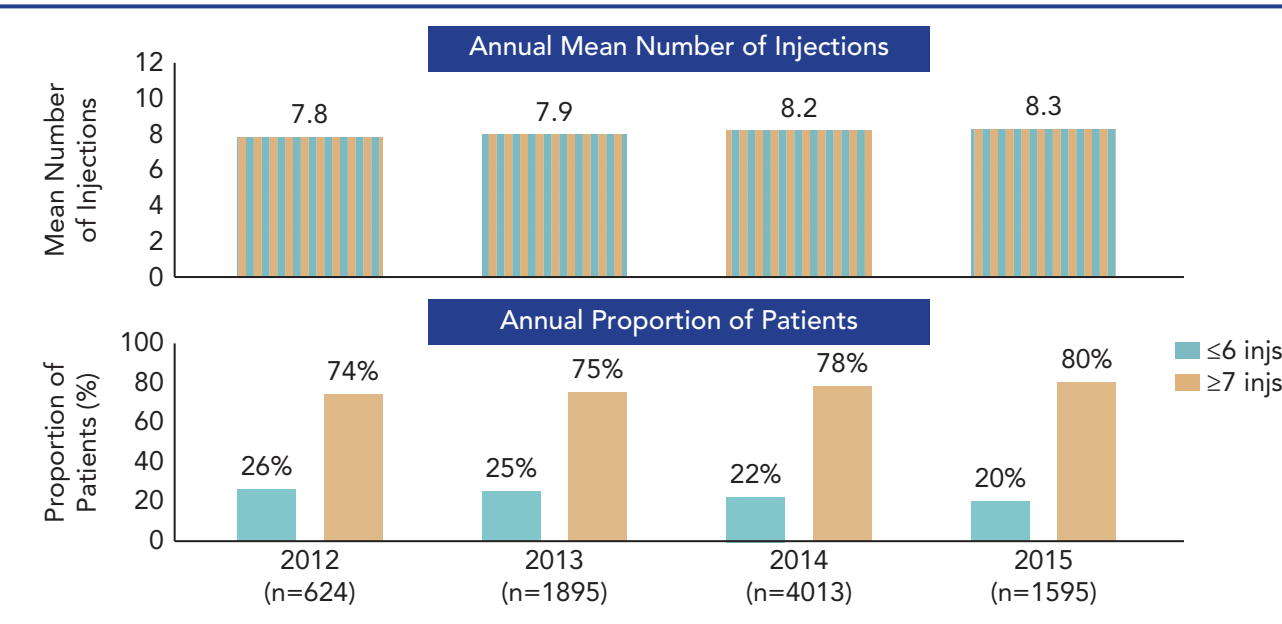
Table 2. Mean VA by Injection Subgroups at Year 2

	Y1: ≤6 injs; Y2: ≤6 injs (n = 415)		Y1: ≤6 injs; Y2: ≥7 injs (n = 198)	
	Start of Y2	End of Y2	Start of Y2	End of Y2
VA score	71.4	67.5	75.8	75.3
Y1 mean # of injections		5.2		5.3
Y2 mean # of injections		4.4		8.2

	Y1: ≥7 injs; Y2: ≤6 injs (n = 1401)		Y1: ≥7 injs; Y2: ≥7 injs (n = 2954)	
	Start of Y2	End of Y2	Start of Y2	End of Y2
VA score	72.5	69.2	76.6	74.4
Y1 mean # of injections		8.5		9.7
Y2 mean # of injections		5.0		9.1

Figure 4. Change Over Time in Injection Frequency During Year 1 of Treatment



### OUTCOMES IN DME

Figure 5. Patient Selection at Year 1 and 2

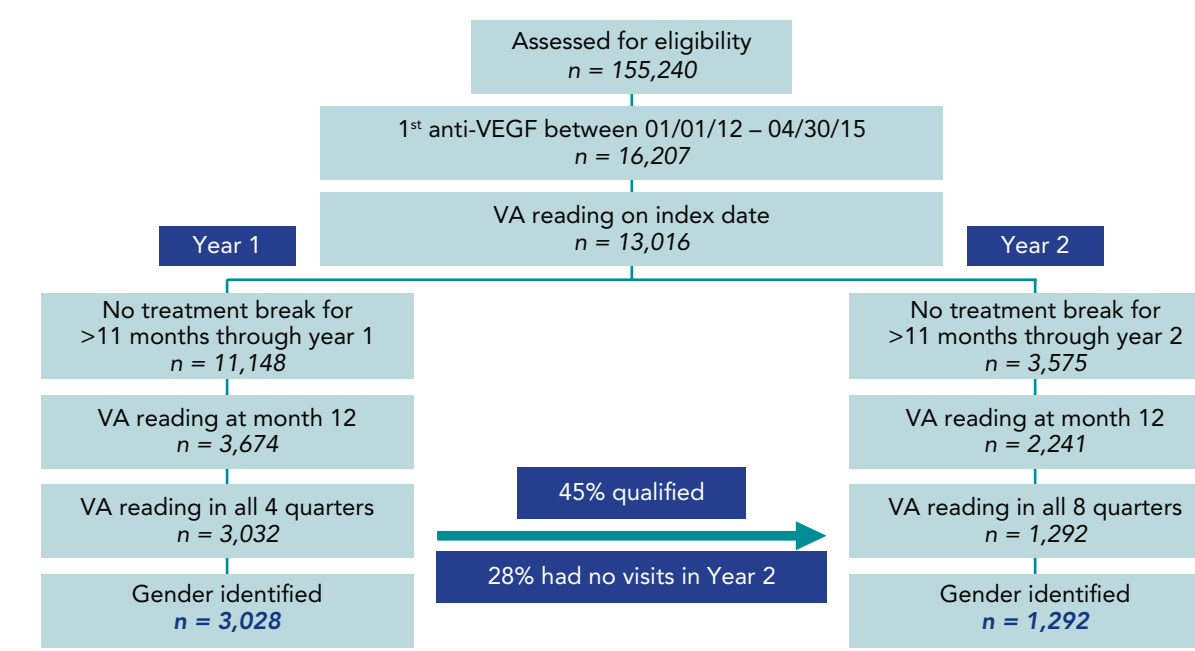


Figure 7. Mean VA by Injection Subgroups Through Year 1

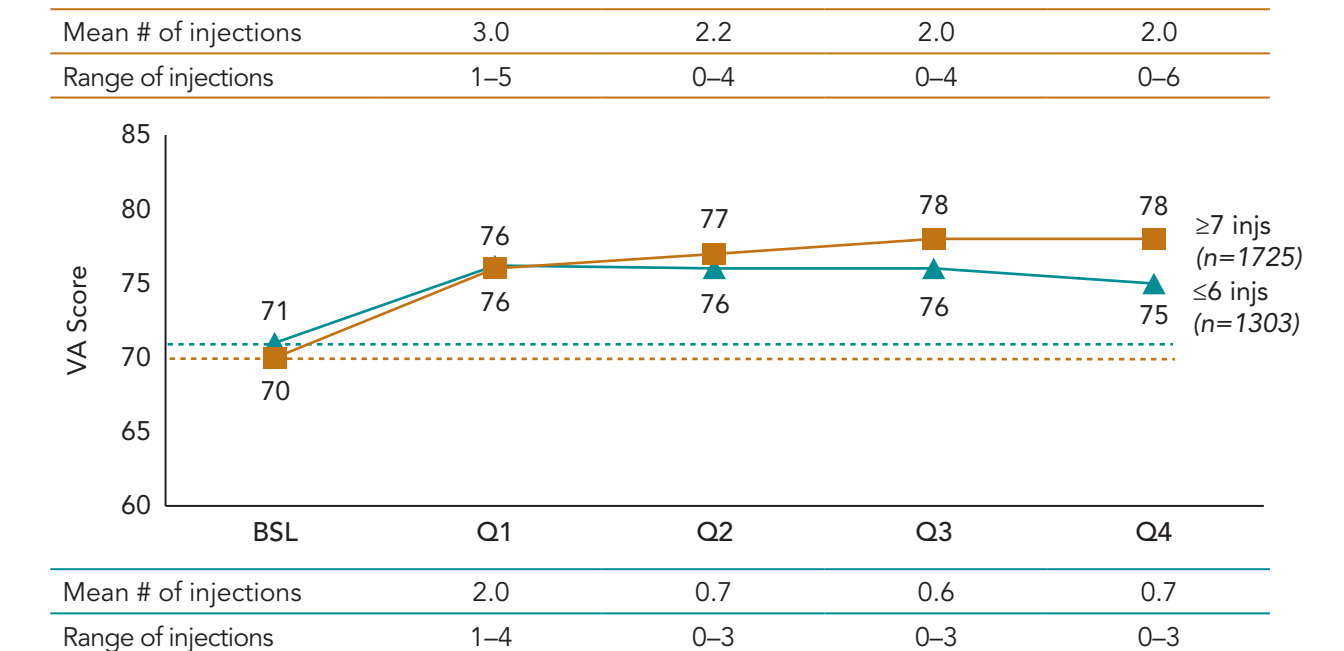
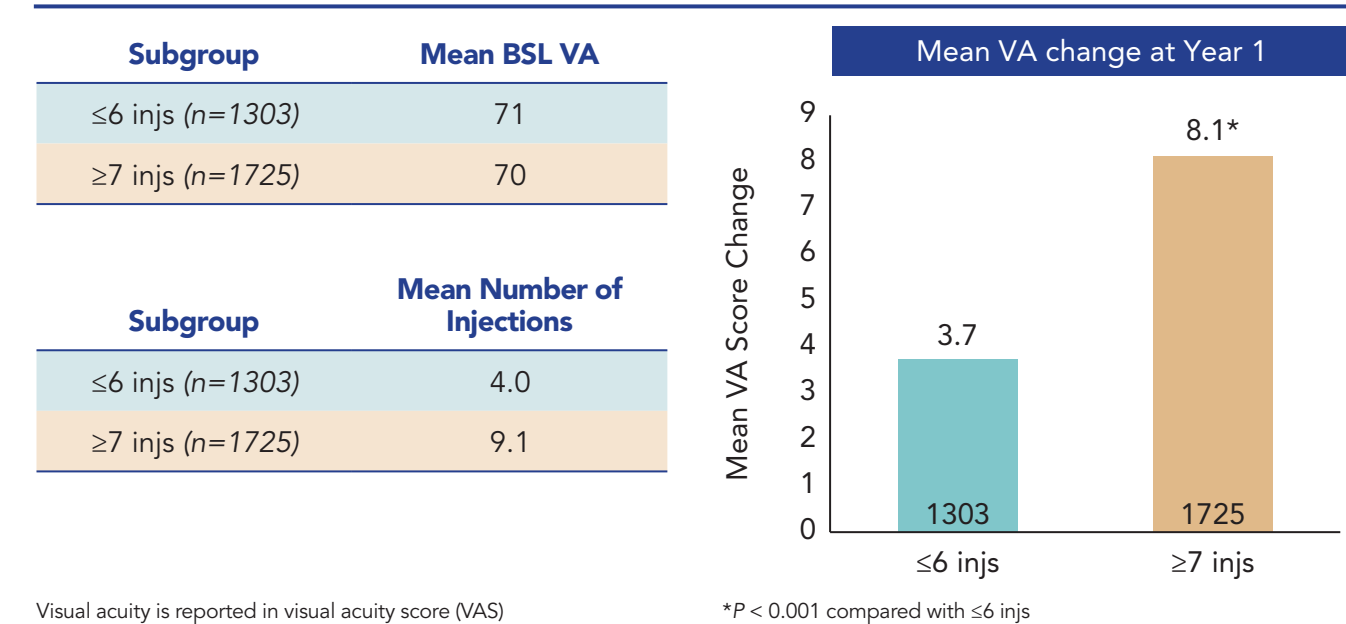


Table 3. Baseline Characteristics

	Total (n=3028)	≤6 injections (n=1303)	≥7 injections (n=1725)
Mean Age, years	62	61	63
Female, %	46%	47%	44%
Mean VA, letters	71	71	70
Median VA, letters	76	77	76
VA Subgroups			
≥20/40	27%	29%	25%
<20/40 – 20/100	51%	50%	51%
<20/100 – 20/200	11%	11%	12%
<20/200	11%	10%	12%

Patients included in Year 1 analysis

Figure 6. Mean VA Change by Injection Subgroups at Year 1



Visual acuity is reported in visual acuity score (VAS)

\*P < 0.001 compared with ≤6 injs

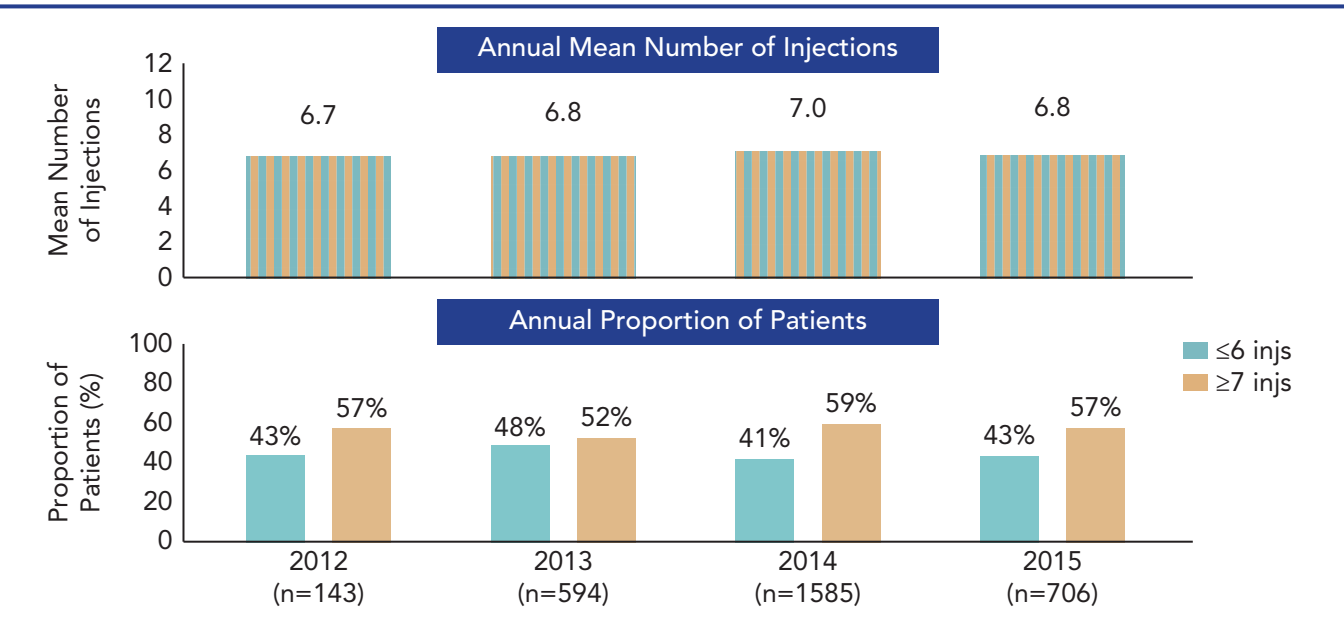
Table 4. Mean VA by Injection Subgroups at Year 2

	Y1: ≤6 injs; Y2: ≤6 injs (n = 230)		Y1: ≤6 injs; Y2: ≥7 injs (n = 124)	
	Start of Y2	End of Y2	Start of Y2	End of Y2
VA score	75.0	74.6	74.8	75.6
Y1 mean # of injections		4.6		4.9
Y2 mean # of injections		4.3		8.2

	Y1: ≥7 injs; Y2: ≤6 injs (n = 364)		Y1: ≥7 injs; Y2: ≥7 injs (n = 574)	
	Start of Y2	End of Y2	Start of Y2	End of Y2
VA score	79.2	76.4	79.2	78.7
Y1 mean # of injections		8.8		9.7
Y2 mean # of injections		4.7		9.0

Figure 8. Change Over Time in Injection Frequency During Year 1 of Treatment



## CONCLUSIONS

- Consistent with results of clinical trials, in routine clinical practice, maintenance of visual gains was associated with more frequent anti-VEGF injections in patients with neovascular AMD or DME
- Patients with neovascular AMD or DME were more likely to receive more frequent injections (≥7) rather than fewer injections (≤6) during the first year of treatment
  - However, a substantial proportion (43%) of DME patients are receiving ≤6 injections during their first year of treatment
- Annually, a trend towards more injections during the first year of treatment was observed in the neovascular AMD cohort, but this trend not seen in DME