

Patient-Reported Functional Vision After Anti-VEGF Therapy for nAMD: A study using the DLTV Questionnaire



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Introduction

- Age-related macular degeneration (AMD) is a major cause of visual impairment
- 2/3rds of visual impairment or blindness registrations in the UK
- Characterised by abnormal choroidal blood vessels beneath the macula, leading to central vision loss
- Anti-VEGF (vascular endothelial growth factor) is the mainstay of treatment
- Traditional VA measures do not fully capture impact on daily functioning
- Patient-reported outcome measures (PROMs), such as the Daily Living Tasks Dependent on Vision (DLTV) questionnaire, provide valuable insights into quality of life

Figure 1: Distribution of DLTV Score Changes at 6-Month Follow-Up

DLTV Score Change	Number of Patients	Percentage (%)
≥ 10% change (increase or decrease)	9	18.8%
≥ 5% but <10% change	11	22.9%
< 5% change	28	58.3%
Total	48	100%

Aim

- Evaluated 6 months of anti-VEGF therapy on self-reported functional vision in nAMD using DLTV
- Explored relationship between visual acuity (VA) changes and DLTV scores
- Assessed whether clinical improvements translate into functional gains
- Examined practical value and sensitivity of DLTV as a PROM in nAMD patients

Results

- DLTV slightly increased (78.10 → 79.21)
- VA improved (0.5533 → 0.3904 logMAR)
- Modest positive correlation between DLTV and VA ($\rho = 0.289$, $p = 0.046$)
- Greater VA improvement linked to higher DLTV scores

Methods

- Prospective study of 50 nAMD patients receiving Ranibizumab
- 48 included (1 not recorded, 1 died before follow-up)
- DLTV and logMAR VA measured at baseline and 6 months
- Changes analysed retrospectively
- Spearman’s correlation used to assess VA–DLTV relationship

Discussion

- Anti-VEGF improves VA and functional vision, but correlation is modest
- DLTV provides useful PROM data but has limitations (sensitivity, relevance, fatigue)
- Fellow eye vision may mask functional changes
- Need for more targeted PROMs
- Integrating PROMs improves assessment of real-world outcomes and quality of life

Figure 2: Visual Acuity (logMAR) of Treated Eye at Baseline and 6-Month Follow-Up

Timepoint	Mean Visual Acuity (logMAR)	Standard Deviation
Baseline	0.5533	0.35723
6 Month Follow up	0.3904	0.30664

Figure 3: Spearman’s rank correlation

Spearman's rho	%change DLTV	%change VA		
			Correlation Coefficient	
			1.000	.289*
			Sig. (2-tailed)	.
			N	48
	%change VA	Correlation Coefficient	.289*	1.000
		Sig. (2-tailed)	.046	.
		N	48	48

*. Correlation is significant at the 0.05 level (2-tailed).