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# Ten-year visual outcomes in patients with treated neovascular age related macular degeneration receiving anti-VEGF therapy | IOVS

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Ten-year visual outcomes in patients with treated neovascular age related macular degeneration receiving anti-VEGF therapy

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## Abstract

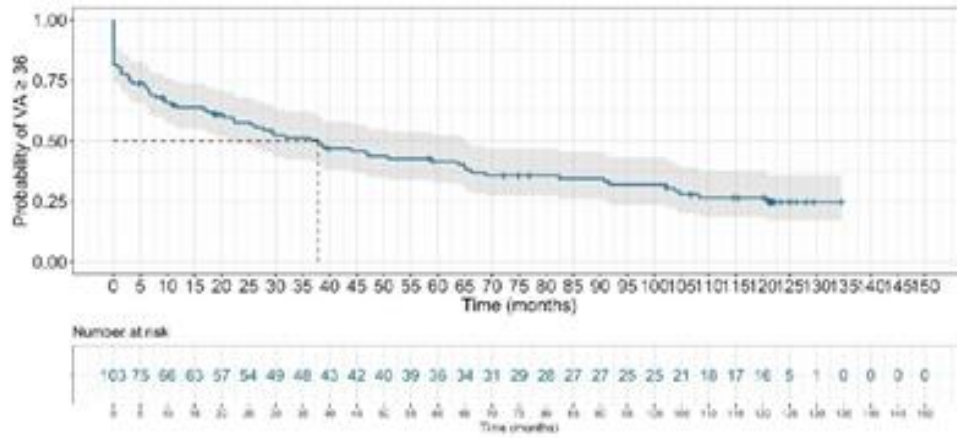
**Purpose :** Intravitreal injections of anti-vascular endothelial growth factor (VEGF) have been proven to be the most effective treatment for nAMD, although there is a lack of supported data from randomized controlled trials (RCTs) on outcomes after 7 years. The purpose of this report is to characterise visual outcome in neovascular AMD (nAMD) patients over 10 years following initiation of anti-VEGF.

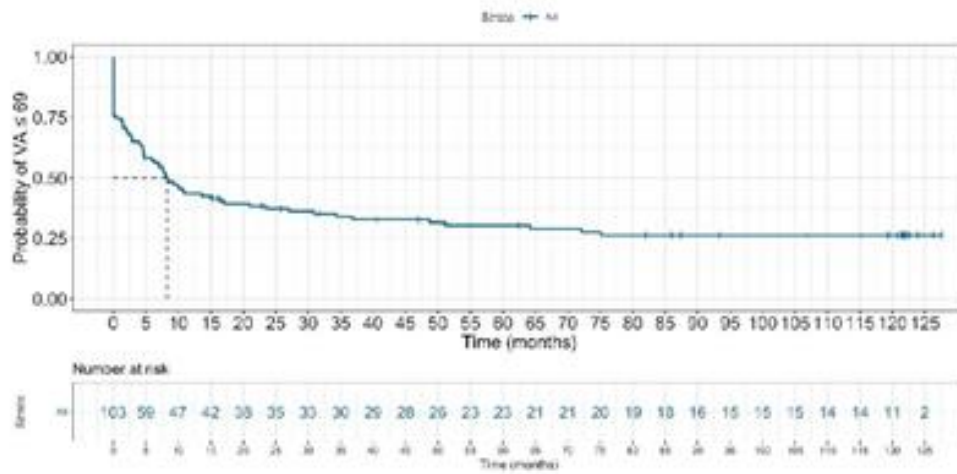
**Methods :** A retrospective cohort review of medical records was performed to collect patients who had commenced intravitreal therapy for nAMD at Moorfields Eye Hospital (MEH) before January 1, 2009. The primary outcome was the visual function at 10 years which was evaluated by estimating the mean visual acuity and the mean change in vision at 10 years. The proportion of eyes with good ( $\geq 70$  letters) and poor final vision ( $\leq 35$  letters) at 10 years was also calculated, together with the time to BCVA  $\leq 35$  letters (6/60) and BCVA  $\geq 70$  letters (6/12).

**Results :** Of the 103 patients who received intravitreal injections for nAMD before January 2009, 56 patients (54.4%) were followed-up for the whole ten-year duration. The mean total number of injections per eye during the follow-up was  $37.0 \pm 24.2$ . Of those, 29 (51.8%) were still on treatment at 10 years. Mean BCVA score at 10 years was  $42.9 \pm 27.0$  ETDRS letters and the mean BCVA change from baseline to the 10-year visit was represented by a drop of 12.4 letters. The proportion of eyes with BCVA  $\geq 70$  and BCVA  $\leq 35$  letters at 10 years were 21.3% and 41.1%, respectively. In addition, the median time to reach BCVA  $\leq 35$  was 37.8 months from baseline, while median time to reach BCVA  $\geq 70$  letters was at 8.3 months (Figure 1 and 2). Time to BCVA  $\leq 35$  letters was negatively associated with baseline BCVA (HR 0.91; 95% CI 0.89-0.94) and positively associated with age (HR 1.08; 95% CI 1.04-1.12), while time to BCVA  $\geq 70$  letters was only positively associated with baseline BCVA (HR 1.13; 95% CI 1.10-1.17). Interestingly, no significant association to number of injections was detected in either time to BCVA  $\leq 35$  letters (HR 1.02; 95% CI 0.99-1.05) or to BCVA  $\geq 70$  letters (HR 0.99; 95% CI 0.93-1.06).

**Conclusions :** This report offers both the clinician and the patient a plausible estimation of what to expect in the long term, how to balance the costs with the benefits, and how to provide more corroborated information based on real-life experience.

This is a 2020 ARVO Annual Meeting abstract.





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