Aflibercept injections for diabetic macula oedema: an audit of 3151 patients in 21 centres followed for 12 months

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Aims

To describe the treatment protocols and outcomes of intra-vitreal injections of aflibercept to patients with diabetic macular oedema.

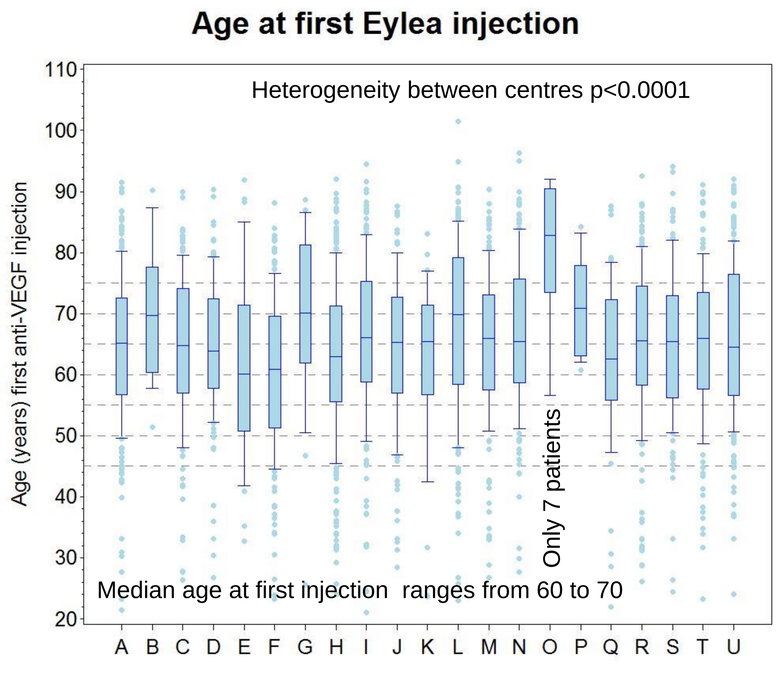
Methods

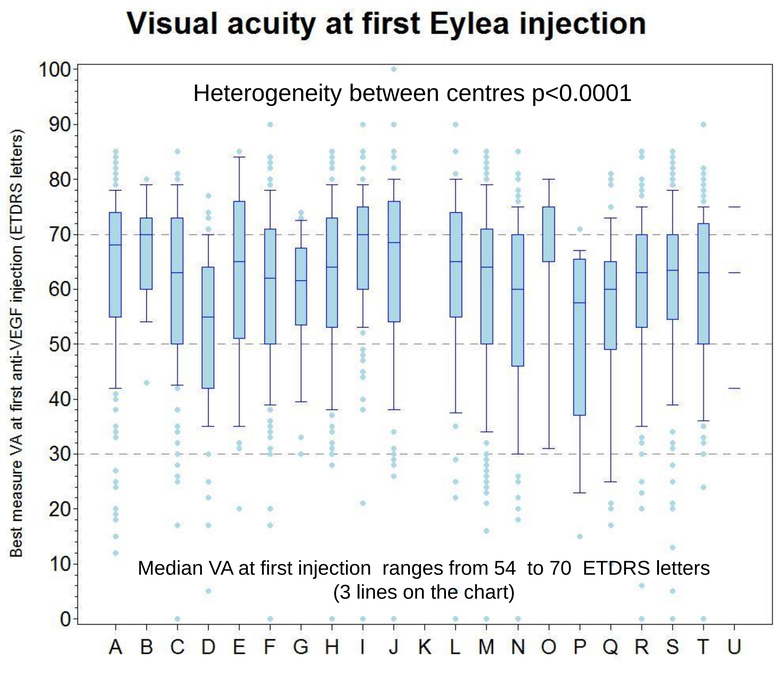
Fully anonymised individual eye level data from 21 UK centres were extracted from the Medisoft electronic medical record system. Data fields pertaining to visual acuities and injection visits were analysed using analysis of variance and with survival modelling of time to 10 letter gain with number of injections included as a time dependent covariate.

Results

Data were available for 3151 first treated eyes with first treatment in or after July 2015. The overall loss to follow up was 10% at 12 months. Significant variation in dosing was seen between centres, time for 50% to receive 5 injections (NICE recommended loading dose) ranging from 16 to 44 weeks. At 12 months the proportion who had received at least 5 injections varied between 62% and 93%.

Older patients were less likely to experience improvement of VA; those 75 years and older 0.49 (0.40 to 0.60) (Hazard ratio (95% confidence limit)). Those with worse vision at first injection were more likely to gain 10 letters; taking those with score of 60 letters as reference group, those with 45 letters or fewer were more likely to improve 1.91 (1.56 to 2.34) (HR(95% CI)).





There are differences between the 21 sites in age of patient at first injection, how many letters patients can read on the eye chart, and how long it takes for the loading dose of 5 injections to be given (the NICE protocol in place at the time).

The response to the injections varies, those with good vision at the time of the first injection are less likely to show a 10 letter gain and younger patients respond more quickly.

The differences in patient population and injection protocol and loss to follow-up mean that it is perhaps unwise to compare sites in terms of vision gain over twelve months.