



MEMORANDUM

NIH-funded study demonstrates effectiveness of Lucentis (ranibizumab) in proliferative diabetic retinopathy - November 23, 2015

The NIH recently announced the results of a study demonstrating the effectiveness of Roche/Novartis/Genentech's Lucentis (ranibizumab) as a treatment for proliferative diabetic retinopathy (PDR). The trial, conducted by the Diabetic Retinopathy Clinical Research Network, enrolled 305 patients with PDR in one or both eyes. Eyes (n=394) were randomized to receive treatment with Lucentis or laser photocoagulation; for patients with PDR in both eyes, one eye was assigned to each group. After two years, eyes treated with Lucentis showed an improvement in vision of approximately half a line on an eye chart vs. no change in the laser group. Lucentis also blunted the decline in side vision compared to laser therapy (average worsening of 23 vs. 422 decibels), and fewer eyes in the Lucentis group required a vitrectomy (a surgical procedure to clear blood from the center of the eye). The [announcement](#) did not state whether these differences were statistically significant. Adverse events were comparable between groups. Interestingly, among eyes without diabetic macular edema (DME) at baseline, fewer went on to develop DME with Lucentis vs. laser therapy (9% vs. 28%). Patients in the study will continue to be followed for five years, and it will be very interesting to see if that effect continues. The results are very good news for patients - as the [NIH announcement](#) notes, this is the first advance in treatment for PDR in 40 years. Commercially, these results could help reverse the recent [decline in sales](#) for Lucentis and help it compete against Bayer/Regeneron's Eylea (aflibercept), which has been boosted by a [comparative effectiveness study](#) showing greater gains in visual acuity with Eylea vs. Lucentis in some patients with non-proliferative diabetic retinopathy. We wonder if there are any plans to investigate Bayer's Eylea, which works via the same mechanism of action as Lucentis, in PDR.