Supplemental Online Content

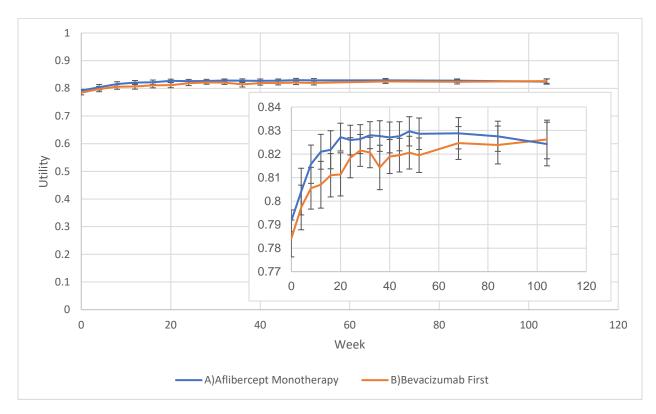
Hutton DW, Glassman AR, Liu D, Sun JK; the DRCR Retina Network. Cost effectiveness of aflibercept monotherapy vs bevacizumab first followed by aflibercept if needed for diabetic macular edema. *JAMA Ophthalmol*. Published online February 2, 2023. doi:10.1001/jamaophthalmol.2022.6142

- **eFigure 1.** Utility Over Time Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema (RESTORE) Utility Mapping Based on the Treated Eye
- **eFigure 2.** Tornado Diagram Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye
- **eFigure 3.** Sensitivity to Cost of Treatment Per Dose Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye
- eFigure 4. Cost-Effectiveness Acceptability Curves
- **eFigure 5.** Cost-Effectiveness Acceptability Curves Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye

eReferences

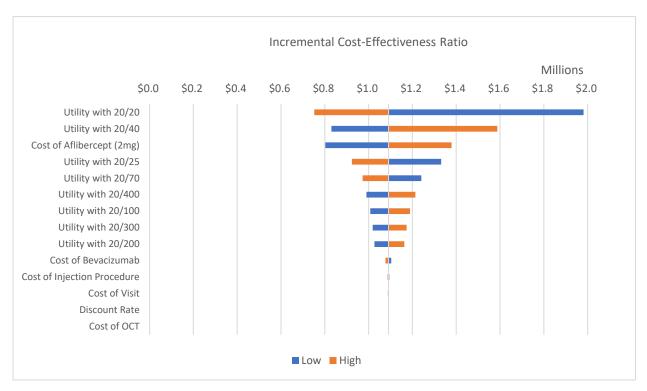
This supplemental material has been provided by the authors to give readers additional information about their work.

eFigure 1. Utility Over Time Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema (RESTORE) Utility Mapping Based on the Treated Eye



Quality-of-life was mapped to visual acuity letter score in the participant's treated eye at each visit using data from data from the RESTORE trial of anti-VEGF therapy for DME.¹ Error bars represent 95% confidence intervals.

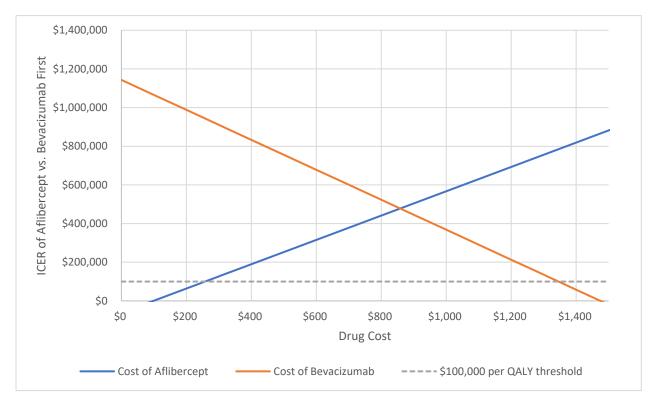
eFigure 2. Tornado Diagram Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye



OCT: Optical Coherence Tomography

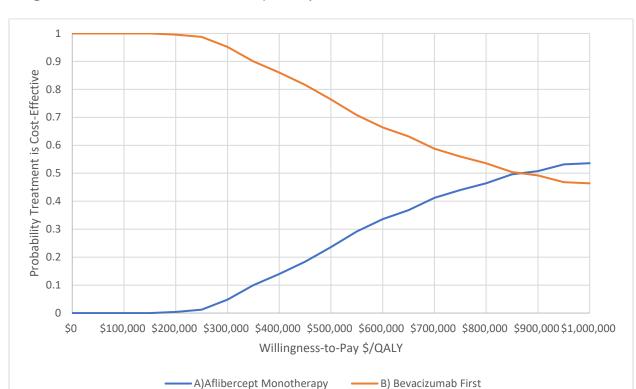
The tornado diagram shows how the incremental cost-effectiveness ratio on the horizontal axis varies as the individual parameter assumptions (on the vertical axis) vary between the high and low ranges (shown in Table 1).

eFigure 3. Sensitivity to Cost of Treatment per Dose Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye



ICER: Incremental Cost-Effectiveness Ratio

The lines show the incremental cost-effectiveness ratio (ICER) of aflibercept vs. bevacizumab first (y-axis) at the varying costs of aflibercept and bevacizumab (x-axis). An ICER below \$100,000/QALY is commonly considered meaningful for determining cost-effectiveness in the United States.²⁻⁶

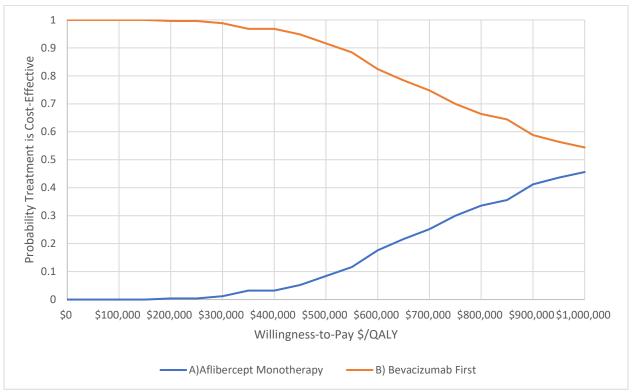


eFigure 4. Cost-Effectiveness Acceptability Curves

QALY: Quality-Adjusted Life-Year.

The curves represent the probability treatment was cost-effective (y-axis) at willingness-to-pay for quality-adjusted life-year (QALY) gains (x-axis). Quality-of-life was mapped to visual acuity letter score in the participant's better-seeing eye at each visit using data from Brown and colleagues.⁷

eFigure 5. Cost-Effectiveness Acceptability Curves Using Ranibizumab Monotherapy or Combined With Laser Versus Laser Monotherapy for Diabetic Macular Edema Utility Mapping Based on the Treated Eye



QALY: Quality-Adjusted Life-Year.

The curves represent the probability treatment was cost-effective (y-axis) at willingness-to-pay for quality-adjusted life-year (QALY) gains (x-axis).

eReferences

- 1. Mitchell P, Annemans L, Gallagher M, et al. Cost-effectiveness of ranibizumab in treatment of diabetic macular oedema (DME) causing visual impairment: evidence from the RESTORE trial. *Br J Ophthalmol.* 2012;96(5):688-693.
- 2. Grosse SD. Assessing cost-effectiveness in healthcare: history of the \$50,000 per QALY threshold. *Expert review of pharmacoeconomics & outcomes research*. 2008;8(2):165-178.
- 3. Anderson JL, Heidenreich PA, Barnett PG, et al. ACC/AHA Statement on Cost/Value Methodology in Clinical Practice Guidelines and Performance MeasuresA Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures and Task Force on Practice Guidelines. *Journal of the American College of Cardiology*. 2014;63(21):2304-2322.
- 4. Hutton D, Newman-Casey PA, Tavag M, Zacks D, Stein J. Switching to less expensive blindness drug could save medicare part B \$18 billion over a ten-year period. *Health affairs*. 2014;33(6):931-939.
- 5. Neumann PJ, Cohen JT, Weinstein MC. Updating cost-effectiveness--the curious resilience of the \$50,000-per-QALY threshold. *N Engl J Med.* 2014;371(9):796-797.
- 6. Ubel PA, Hirth RA, Chernew ME, Fendrick AM. What is the price of life and why doesn't it increase at the rate of inflation? *Arch Intern Med.* 2003;163(14):1637-1641.
- 7. Brown MM, Brown GC, Sharma S, Landy J. Health care economic analyses and value-based medicine. *Surv Ophthalmol.* 2003;48(2):204-223.