**Cost-effectiveness of ranibizumab and aflibercept to treat diabetic macular edema from a U.S. perspective: analysis of 2-year Protocol T data**

**Supplement**

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Contents

Supplementary Table S1.

Supplementary Figure S1.

Supplementary Table S1. One-way sensitivity analysis results.

| Analysis | AFL 2.0 mg  total costs | RBZ  0.3 mg  total costs | | AFL  2.0 mg  QALYs | | RBZ  0.3 mg  QALYs | | | ICER  ($/QALY gained) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Full cohort | $44,423 | | $34,529 | | 1.476 | | 1.466 | $986,159 | | |
| RBZ 0.3 mg costs  Increase by 20%  Decrease by 20% | $44,423  $44,423 | | $39,662  $29,397 | | 1.476  1.476 | | 1.466  1.466 | $474,603  $1,497,715 | | |
| AFL 2.0 mg costs  Increase by 20%  Decrease by 20% | $52,037  $36,810 | | $34,529  $34,529 | | 1.476  1.476 | | 1.466  1.466 | $1,745,054  $227,265 | | |
| Laser costs  Increase by 20%  Decrease by 20% | $44,502  $44,344 | | $34,628  $34,431 | | 1.476  1.476 | | 1.466  1.466 | $984,201  $988,117 | | |
| Adverse event costs  Increase by 20%  Decrease by 20% | $45,045  $43,801 | | $35,576  $33,484 | | 1.476  1.476 | | 1.466  1.466 | $943,801  $1,028,324 | | |
| VA impairment costs  Increase by 20%  Decrease by 20% | $44,569  $44,276 | | $34,706  $34,351 | | 1.476  1.476 | | 1.466  1.466 | $983,075  $989,271 | | |
| VA health state utilities  Increase by 20%  Decrease by 20% | $44,423  $44,423 | | $34,529  $34,529 | | 1.624  1.329 | | 1.613  1.320 | $898,487  $1,097,988 | | |
| Number of RBZ 0.3 mg injections/2 years  19 (75th percentile)  11 (25th percentile) | $44,423  $44,423 | | $40,771  $26,457 | | 1.476  1.476 | | 1.466  1.466 | $364,085  $1,790,760 | | |
| Number of AFL 2.0 mg injections/2 years  17 (75th percentile)  11 (25th percentile) | $51,311  $34,729 | | $34,529  $34,529 | | 1.476  1.476 | | 1.466  1.466 | $1,672,678  $19,930 | | |
| Bilateral treatment  Decrease annual fellow eye injectionsa | $38,332 | | $30,319 | | 1.476 | | 1.466 | $798,671 | | |
| With NH and CG costs  Base case NH/CG costs  Increase by 20%  Decrease by 20% | $51,373  $52,738  $50,009 | | $43,643  $45,275  $42,010 | | 1.476  1.476  1.476 | | 1.466  1.466  1.466 | $770,563  $734,875  $797,251 | | |
| VA subgroup 1 (20/40 or better at baseline) |  | |  | |  | |  |  | | |
| Base case results | $40,854 | | $31,897 | | 1.517 | | 1.519 | RBZ dominates AFL | | |
| RBZ 0.3 mg costs  Increase by 20%  Decrease by 20% | $40,854  $40,854 | | $36,649  $27,145 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| AFL 2.0 mg costs  Increase by 20%  Decrease by 20% | $47,866  $33,841 | | $31,897  $31,897 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| Laser costs  Increase by 20%  Decrease by 20% | $40,933  $40,775 | | $31,955  $31,798 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| Adverse event costs  Increase by 20%  Decrease by 20% | $41,475  $40,231 | | $32,943  $30,851 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| VA impairment costs  Increase by 20%  Decrease by 20% | $40,921  $40,786 | | $31,961  $31,832 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| VA health state utilities  Increase by 20%  Decrease by 20% | $40,854  $40,854 | | $31,897  $31,897 | | 1.669  1.365 | | 1.671  1.367 | RBZ dominates AFL  RBZ dominates AFL | | |
| Number of RBZ 0.3 mg injections/2 years  19 (75th percentile)  11 (25th percentile) | $40,854  $40,854 | | $38,777  $25,016 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| Number of AFL 2.0 mg injections/2 years  17 (75th percentile)  11 (25th percentile) | $48,779  $32,929 | | $31,897  $31,897 | | 1.517  1.517 | | 1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL | | |
| Bilateral treatment  Decrease annual fellow eye injectionsa | $35,875 | | $28,407 | | 1.517 | | 1.519 | RBZ dominates AFL | | |
| With NH and CG costs  Base case NH/CG costs  Increase by 20%  Decrease by 20% | $44,659  $45,395  $43,923 | | $36,446  $37,166  $35,726 | | 1.517  1.517  1.517 | | 1.519  1.519  1.519 | RBZ dominates AFL  RBZ dominates AFL  RBZ dominates AFL | | |
| VA subgroup 2 (20/50 or worse at baseline) |  | |  | |  | |  |  | | |
| Base case results | $48,214 | | $37,246 | | 1.433 | | 1.412 | $523,377 | | |
| RBZ 0.3 mg costs  Increase by 20%  Decrease by 20% | $48,214  $48,214 | | $42,771  $31,722 | | 1.433  1.433 | | 1.412  1.412 | $259,740  $787,014 | | |
| AFL 2.0 mg costs  Increase by 20%  Decrease by 20% | $56,466  $39,961 | | $37,246  $37,246 | | 1.433  1.433 | | 1.412  1.412 | $917,185  $129,570 | | |
| Laser costs  Increase by 20%  Decrease by 20% | $48,293  $48,135 | | $37,345  $37,148 | | 1.433  1.433 | | 1.412  1.412 | $522,440  $524,315 | | |
| Adverse event costs  Increase by 20%  Decrease by 20% | $48,835  $47,591 | | $38,293  $36,201 | | 1.433  1.433 | | 1.412  1.412 | $503,097  $543,565 | | |
| VA impairment costs  Increase by 20%  Decrease by 20% | $48,444  $47,981 | | $37,540  $36,949 | | 1.433  1.433 | | 1.412  1.412 | $520,346  $526,432 | | |
| VA health state utilities  Increase by 20%  Decrease by 20% | $48,214  $48,214 | | $37,246  $37,246 | | 1.576  1.290 | | 1.553  1.271 | $477,254  $581,965 | | |
| Number of RBZ 0.3 mg injections/2 years  19 (75th percentile)  11 (25th percentile) | $48,214  $48,214 | | $42,828  $27,944 | | 1.433  1.433 | | 1.412  1.412 | $257,030  $967,290 | | |
| Number of AFL 2.0 mg injections/2 years  17 (75th percentile)  11 (25th percentile) | $54,000  $36,642 | | $37,246  $37,246 | | 1.433  1.433 | | 1.412  1.412 | $799,494  AFL dominates RBZ | | |
| Bilateral treatment  Decrease annual fellow eye injectionsa | $40,940 | | $32,292 | | 1.433 | | 1.412 | $412,684 | | |
| With NH and CG costs  Base case NH/CG costs  Increase by 20%  Decrease by 20% | $58,503  $60,536  $56,470 | | $51,069  $53,644  $48,494 | | 1.433  1.433  1.433 | | 1.412  1.412  1.412 | $354,744  $328,884  $380,604 | | |

Abbreviations. AFL, aflibercept; CG, caregiver; ICER, incremental cost-effectiveness ratio; NH, nursing home; QALY, quality-adjusted life-year; RBZ, ranibizumab; VA, visual acuity.

aBase case injection frequency assumptions for patients treated in the fellow eye: (a) from baseline through ≥1 year (2× median number of injections), or (b) any time before 2 years, but not at baseline (1.5×) were reduced to 1.5× and 1.25×, respectively.

Supplementary Figure S1. Results of 5,000 Bootstrap Probabilistic Analyses (Aflibercept 2.0 mg vs. Ranibizumab 0.3 mg), Base Case Estimate (Red Circle), and $150,000/QALY ICER Threshold (Red Dashed Line): A. Full Cohort, B. VA Subgroup 1 (20/40 or Better at Baseline), and C. VA Subgroup 2 (20/50 or Worse at Baseline)

ICER = incremental cost-effectiveness ratio; QALY = quality-adjusted life-year; VA = visual acuity.

