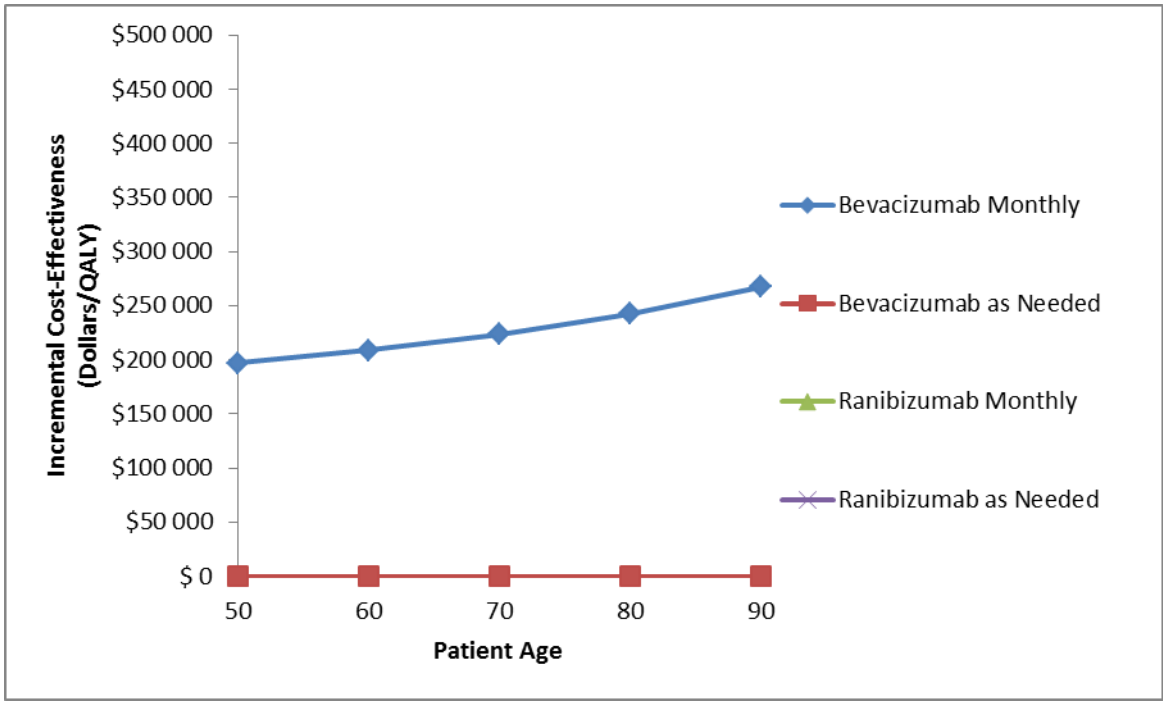
Figure 9: The Impact of Varying Age of Initial Diagnosis of Neovascular Macular Degeneration on the Cost-Effectiveness of Bevacizumab and Ranibizumab Therapy for Age-Related Macular Degeneration on the Study Findings



This figure shows the impact of varying the age of first diagnosis and treatment of exudative macular degeneration on the output of the model. As one might expect, those who are first diagnosed with exudative macular degeneration at a younger age achieve greater value from undergoing treatment with anti-VEGF agents relative to those who are older in age at first diagnosis of the condition. The figure shows that as needed bevacizumab is highly cost-effective, irrespective of the age of initial macular degeneration diagnosis. Bevacizumab as-needed is always the lowest cost and therefore has an incremental cost-effectiveness ratio of zero. Even among patients who are diagnosed with exudative macular degeneration as young as age 50, the incremental cost-effectiveness of monthly bevacizumab is about $197,000/QALY and this number goes up with increasing age. Treatment with ranibizumab does not incur much value relative to the other interventions irrespective of age. Ranibizumab monthly is either dominated by bevacizumab monthly (more costs and fewer QALYs) at the lower ages or has an incremental cost-effectiveness ratio above $7 million per QALY and is thus off the top of the chart. Ranibizumab as-needed is dominated by bevacizumab as-needed and therefore does not have an incremental cost-effectiveness ratio.

QALY = quality-adjusted life year; VEGF = vascular endothelial growth factor