PSS31  COST-EFFECTIVITY OF PANRETINAL PHOTOCOAGULATION ADMINISTRATION FOR AGE-RELATED MACULAR DEGENERATION IN CHINA

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OBJECTIVES: To conduct the cost-utility analysis (CUA) of treatment strategy with ranibizumab 0.5 mg re-when needed (as-needed) with aflibercept 2 mg bi-monthly in the treatment of visual impairment (VI) due to diabetic macular oedema (DMO) using a Markov model previously reviewed by the National Institute for Health and Care Excellence (NICE) for main costs and health outcomes were discounted with 3% annually.

RESULTS: For ranibizumab compared with aflibercept, the mean QALY gained ICER against imiquimod was €2806. The optimal treatment when willingness-to-pay/QALY gained exceeded €2806. The total cost of the model was €15,000/30,000 per QALY gained ICER against imiquimod.

CONCLUSIONS: A sequential probabilistic decision-tree with 2-year time-horizon was used to assess the cost-effectiveness (incremental cost-effectiveness ratio, ICER) of ranibizumab monotherapy, and to determine the cost-effectiveness acceptability frontier (CEAF) and expected value of perfect information per patient (EVPI) from health care payer perspective. In the model, the first-line AK-treatment resulted in complete clearance (CC) with or without adverse events (AE), non-CC or AK-recurrence. Non-CC AK was retreated with PDT and AK-recurrence was retreated with the previous treatment. Incident AK-patients (year 2009, n=3409, organ transplant patient excluded) were identified from the Finnish hospital discharge register to assess AK-related 2-year secondary health care costs for patients initiating different treatment regimens. Future costs and health outcomes were estimated with data from the RESTORE trial (n=36 months). A published network meta-analysis was used to assess the relative effectiveness of ranibizumab to aflibercept. Aflibercept injection frequency was calculated with VIVID/VISTA phase III trials. Different utilities were used if the treated eye was the better or the worse-seeing eye. RESULTS: Ranibizumab monotherapy leads to an incremental gain of 0.05 quality-adjusted life-years (QALY) (0.04 from the better-seeing eye and 0.01 from the worse-seeing eye) with a cost savings of €9,841 relative to aflibercept. Therefore, ranibizumab provides greater health gains with lower overall costs than aflibercept. Probabilistic sensitivity analysis shows that ranibizumab has a 58% probability of being dominant and 79% probability of being cost-effective compared with aflibercept at a willingness-to-pay threshold of €8000 per QALY gained.

CONCLUSIONS: Ranibizumab is dominant over aflibercept in the treatment of VI due to DMO.

PSS35  THE FUTURE HEALTH ECONOMIC POTENTIAL OF NEXT GENERATION ARTIFICIAL VISION DEVICES FOR TREATING BLINDNESS IN GERMANY: AN EARLY COST-UTILITY ASSESSMENT

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OBJECTIVES: The next generation of artificial vision devices (AVDs), which is currently in clinical trials, was designed to improve the vision of blind patients with retinitis pigmentosa (RP) in a manner that they will be categorized as visual impaired but no longer as blind. This unprecedented vision improvement will result in a remarkable quality of life gain which poses the question at which costs these improvements were regarded acceptable. In order to answer this research question a Markov model, with the health states blind, visual impaired and death, was developed and simulated to compare the costs and effects of next generation AVDs versus best supportive care (BSC) over a lifetime horizon. Health care costs and utilities for the Markov health