in each country. Latanoprost was 3% less expensive than bimatoprost and travoprost in Norway and Sweden, and the costs of the 3 agents were within 1% of each other in Denmark. Latanoprost dominated (i.e., was more effective and less expensive than) bimatoprost and travoprost in Norway and Sweden. In Denmark, bimatoprost dominated travoprost. Although bimatoprost was slightly less expensive than latanoprost in Denmark (DKK 28,700 vs 29,000, respectively), latanoprost was more effective yielding an incremental cost-effectiveness ratio of DKK 47,871. **CONCLUSIONS:** In Scandinavia, latanoprost was more cost-effective than other available prostaglandin analogues over a 5-year period.

PEY15

LATANOPROST VERSUS TIMOLOL MONOTHERAPY FOR THE TREATMENT OF GLAUCOMA: A COST-EFFECTIVNESS ANALYSIS IN SCANDINAVIA AND THE UK USING A DECISION-ANALYTIC HEALTH ECONOMIC MODEL

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OBJECTIVE: To assess the relative cost-effectiveness of monotherapy with latanoprost or timolol in the treatment of open-angle glaucoma in Denmark, Norway, Sweden (Scandinavia), and the UK (UK). **METHODS:** Cost-effectiveness analysis was performed using a Markov model. The health states were stable and progressed glaucoma. Transition probabilities for primary open-angle and exfoliation glaucoma were derived from the medical literature, and data concerning practice patterns were obtained from surveys completed by 54 ophthalmologists geographically dispersed throughout each of the countries. Country-specific unit costs were assigned for medications, patient visits, diagnostics, and therapeutic procedures. Quality of life weights for various levels of visual acuity ranged from 0.50 to 0.68. A payer perspective with a 5-year time horizon was adopted and costs were discounted at 3% for Scandinavia or 3.5% for the UK per year. **RESULTS:** Latanoprost was less expensive than timolol, ranging from 5.4% to 6.7% less in Scandinavia and by 2.1% less in the UK. The range of effectiveness (years to progression of glaucoma) between treatment cohorts was narrow, from 0.003 to 0.01, which may have reflected the fact that the design assumed that physicians control most patients' glaucoma over 5 years by adding or changing therapy. Incremental cost-effectiveness ratios for latanoprost versus timolol were DKK 447,857 in Denmark, NOK 457,212 in Norway, SEK 1,251,126 in Sweden, and GBP 6087 in the UK. **CONCLUSIONS:** Over a 5-year period, latanoprost monotherapy is as cost-effective as traditional timolol generics in Scandinavia and the UK.

PEY16

COST-UTILITY ANALYSIS FOR PEGAPTANIB IN AGE-RELATED MACULAR DEGENERATION IN THE UK: THE IMPACT OF DEMOGRAPHIC AND DISEASE CHARACTERISTICS

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OBJECTIVES: To estimate the cost-effectiveness of pegaptanib versus best supportive care for age-related macular degeneration (ARMD) in the UK and to evaluate the impact of patient characteristics. **METHODS:** A 10-year Markov model was constructed composed of 13 health states, 12 visual acuity (VA) states defined by individual Snellen lines and death. Time-dependent transition probabilities for the loss and gain of Snellen lines were derived from parametric survival models fitted to patient-level data from the VISION trial. Survival models were fitted with treatment group and baseline Snellen score as covariates, and other models were fitted with the addition of age, gender, and lesion type or lesion size. Mortality rates were adjusted for the age and gender of the model population. Utility weights elicited using a choice-based method were derived from the published literature. Resource use estimates were developed by structured interview of three consultant ophthalmologists. Other model parameters were obtained from the published literature; unit costs were obtained from national sources (cost year 2005). Uncertainty was explored by probabilistic and univariate sensitivity analysis. **RESULTS:** In the base-case analysis, treatment was targeted to patients with VA of 20/40 to 20/320 and was discontinued if VA fell below 20/320 or by 6 or more lines. The incremental cost per quality adjusted life year gained (IC/QALY) was estimated as £8023 [upper 95% CI: £20,641]. Age had the greatest impact [age <75: £2033/QALY; age ≥75: £11,657/QALY]. Pre-treatment VA was also important [20/40 to 20/320: £8023/QALY; 20/40 to 20/200: £6664/QALY]. Gender, lesion type, and lesion size had little effect on the IC/QALY [all estimates were between £7000 and £9000/QALY]. **CONCLUSIONS:** Pegaptanib treatment is expected to be cost-effective across all groups studied, and marginally more cost-effective in younger patients and those with better pre-treatment VA.

PEY17

COST-EFFECTIVENESS OF PEGAPTANIB IN AGE-RELATED MACULAR DEGENERATION: IMPACT OF DIFFERENCES BETWEEN US AND UK HEALTH CARE SYSTEMS

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OBJECTIVES: To determine the impact of differences in care and services provided to the visually impaired in the UK (UK) and the United States (US) on the cost-effectiveness of pegaptanib in age-related macular degeneration (ARMD). **MEHTODS:** A Markov model was used to model the visual acuity of a cohort of ARMD patients over a period of 10 years. Country-specific data for the US and UK included mortality rates, treatment-related costs, adverse event treatment patterns, costs associated with excess cases of depression and injury, and services provided to the visually impaired. In the UK, these consisted of visual aids and rehabilitation, community and residential care, and social security benefits. In the US, these included all Medicare costs including skilled nursing facility and nursing home care. Social security benefits have not been quantified in the US and could not be included. **RESULTS:** The incremental benefit of pegaptanib was slightly higher in the US than the UK due to the slightly greater life expectancy (incremental quality-adjusted life year [QALY] estimates were 0.302 and 0.297, respectively). The average per patient cost associated with the provision of services to those with visual impairment was similar when social security benefits were excluded but substantially lower in the US than the UK when they were included ($24,815 and GBP 25,014 [~$46,326] per patient receiving standard care, respectively). This resulted in higher incremental cost/QALY estimates in the US than the UK ($37,607 and GBP 8023 [~$14,842], respectively). **CONCLUSION:** Pegaptanib is expected to be cost-effective at recognized thresholds in both health care systems, despite differences in the provision of health and personal care. Cost-effectiveness in the US may be underestimated due to the lack of information on the cost of social security benefits for the visually impaired.