COST-EFFECTIVENESS OF BORTEZOMIB (VELCADE) FOR RELAPSED AND REFRACTORY MULTIPLE MYELOMA
Bagust A1, Haycox A1, Mujica-Mota R1, Dhawan R1, Dubois D1
1University of Liverpool, Liverpool, UK; 2Johnson & Johnson Pharmaceutical Services LLC, Raritan, NJ, USA; 3Johnson & Johnson Pharmaceutical Services LLC, Beerse, Belgium

OBJECTIVES: Currently, no active third-line treatment exists for patients previously treated for multiple myeloma, who fail to respond to conventional chemotherapy. A model was developed to evaluate the costs and benefits of a new proteasome inhibitor, VELCADE, relative to best supportive care. METHODS: A two-part mathematical model of survival was applied to individual patient data from the SUMMIT trial, a multi-center phase 2, single arm trial of adult patients with a life expectancy of more than 3 months; in the first part the time to disease progression for patients was estimated; the time from disease progression till death was estimated in the second part. Several survival estimation techniques were applied. Resource use data from SUMMIT were used to estimate costs from the perspective of the NHS in the UK for VELCADE administration, hospital care, concomitant medications and diagnostic tests and surgical procedures on an individual patient basis. RESULTS: By delaying the rate at which disease progresses, VELCADE produces survival gains relative to Best Supportive Care that range between 7.75 to 12.09 months of life depending on the assumed survival profile. Additional costs (2003 prices) of the novel agent were £17,290 without accounting for additional costs incurred during the extended period of survival or £24,121 if such costs are included. Combining these results with various survival estimations yields an incremental cost-effectiveness ratio (ICER) for VELCADE in the range of £17,161–£33,539 per life year gained. CONCLUSION: VELCADE has been licensed in Europe and hence information with regard to its clinical and cost-effectiveness is timely. The range of ICER estimates obtained (£17,000–£33,000 per additional life year) demonstrate cost-effectiveness of VELCADE as compared with Best Supportive Care. These ICER estimates compare favourably to other salvage therapies currently in widespread use throughout the UK.

COST-UTILITY ANALYSIS OF ANASTROZOLE VERSUS TAMOXIFEN AS ADJUVANT THERAPY IN POSTMENOPAUSAL WOMEN WITH EARLY BREAST CANCER (EBC): A UK NATIONAL HEALTH SERVICE (NHS) PERSPECTIVE
Brown R1, Benedict A1, Mansel RE2
1MEDTAP International Inc, London, UK; 2University of Wales College of Medicine, Cardiff, UK

OBJECTIVES: This study estimated the incremental cost per quality adjusted life year (QALY) gained for anastrozole compared with tamoxifen from the UK NHS perspective, based upon ATAC trial data (Cancer 2003;98:1802–10). In this trial, anastrozole demonstrated superior efficacy and tolerability versus tamoxifen. Cost-effectiveness analysis found that over 25 years anastrozole had an incremental cost-effectiveness ratio (ICER) of GBP11,747 per life-year gained (LYG) among the clinically relevant population of patients with hormone receptor-positive (HR+) EBC. The model was expanded to include patient utilities to meet NICE and Scottish Medicines Committee preferences for cost-utility analysis and to facilitate comparisons across disease areas. METHODS: Patient utilities were elicited from 23 EBC patients on adjuvant hormonal therapy. Using the standard gamble technique, health states relating to adverse events reported in ATAC and breast cancer disease states were compiled and reviewed by clinicians. Utility values were incorporated into the cost-effectiveness model projecting outcomes for anastrozole and tamoxifen to 25 years, based on probability of side effects (ATAC safety data) and time in a particular health state. All parameters (including utilities) were varied in sensitivity analyses. QALYs and unadjusted LYG were compared with cost outcomes. RESULTS: Patients’ valuation of the different health states ranged from 0.71 to 0.99. Differences between incremental LYG and QALYs for anastrozole and tamoxifen were similar (0.3). The discounted ICER of anastrozole compared with tamoxifen was GBP11,506 per QALY gained (95% CI: GBP1771–GBP22,491). CONCLUSIONS: The incorporation of mean- adjusted utility values resulted in only minor improvement in the ICER in favour of anastrozole. Furthermore, sensitivity analysis showed that the ICER was robust to changes in utility scores and that the greatest impact on the ICER remains the improved disease-free survival with anastrozole. Anastrozole provides QALY gains at acceptable costs compared with tamoxifen in the adjuvant treatment of postmenopausal women with HR+ EBC.

HOSPITALIZATION COSTS OF PATIENTS WITH INFECTIONS WHO HAVE LUNG CANCER OR NEUTROPENIA IN SWEDEN—A RETROSPECTIVE DATABASE STUDY
Myren KJ
Eli Lilly Sweden AB, Solna, Sweden

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