TRANSFERABILITY OF MODEL-BASED ECONOMIC EVALUATIONS: THE CASE OF TRASTUZUMAB FOR THE ADJUVANT TREATMENT OF HER2-POSITIVE EARLY BREAST CANCER IN THE NETHERLANDS

Joore MA1, Tjan Heijnen V1, Severens JL1, Novák A2, Oron U1, Pompen M3, Essers BA1

1University Hospital Maastricht, Maastricht, The Netherlands, 2Anovák-Services, Apeldoorn, The Netherlands, 3Roche Netherlands BV, Woerden, The Netherlands

OBJECTIVES: Geographic transferability of model-based cost-effectiveness results across countries can facilitate and shorten the appraisal process for reimbursement of pharmaceuticals. The objective of this study was to assess the transferability of a UK model-based cost-effectiveness analysis of trastuzumab in early breast cancer in order to obtain a Dutch cost-effectiveness estimate. METHODS: Three checklists published by Welte et al. (2004), Boulenger et al. (2005) and Urdahl et al. (2006) were used to assess the transferability of a UK model-based study to the Dutch setting. RESULTS: The UK study meets the general knock-out criteria from Welte et al., indicating that in The Netherlands, trastuzumab in early breast cancer is licensed and used in the same regimen as in the UK model. Applying the checklist by Boulenger et al produced a high transferability information score of 93%, indicating an adequate description of model inputs and transferability to the Dutch setting. The questions by Urdahl et al. could be answered adequately. The decision was made to adjust the health state utilities and background mortality. All UK-prices on resource use were replaced by Dutch unit prices and updated to 2006. The friction cost method was used to calculate the costs of productivity loss. The cost inputs and the risk of cardiac adverse events were varied in one-way sensitivity analyses. CONCLUSIONS: Overall, transferring the UK-model structure and adjusting some of the model inputs to the Dutch setting proved to be an efficient method to obtain a reliable Dutch estimate for the adjuvant treatment of trastuzumab. The necessary adjustments were made to the cost-effectiveness study. Cost-effectiveness calculations, probabilistic sensitivity analysis, subgroup analyses, one-way sensitivity analysis and value of information analyses were performed. The outcomes of the modelling are addressed in a separate abstract.

PODIUM SESSION II: QUALITY OF LIFE/ PREFERENCE-BASED MEASURES II: APPLICATION OF MEASURES

COMPARISON OF EQ-5D AND HUI3 IN PATIENTS WITH TINNITUS

Maes H1, Joore MA1, Cima RP2, Vlaven JWW3, Anteunis LJ4

1University Hospital Maastricht, Maastricht, The Netherlands, 2Maastricht University, Maastricht, The Netherlands

OBJECTIVES: Tinnitus is a common, chronic health-condition affecting 10% to 20% of the adult population and especially hearing impaired individuals. There is no curative therapy for this condition and treatment is aimed at increasing well-being. Measurement of health state utilities is an essential element of CEA in health care. Several studies found that different utility instruments provide different estimates of the same person’s level of utility. This study aims to gain insight into differences between utility measures, by determining the construct validity of EQ-5D and HUI3 and agreement between both measures in tinnitus patients. METHODS: Baseline data on EQ-5D and HUI3 of 159 patients in a randomized controlled clinical trial investigating cost-effectiveness of usual care versus specialized care of tinnitus, were examined. Agreement was assessed using the intra-class correlation coefficient (ICC). In absence of a gold standard to measure health state utility, construct validity was determined by comparing utility scores for clinical different groups, based on scores from the Tinnitus Questionnaire. RESULTS: Mean utility scores for EQ-5D (0.78; sd 0.20) and HUI3 (0.64; sd 0.27) were different (Wilcoxon Signed Ranks Test, P-value < 0.001), agreement was low to moderate (ICC = 0.40). EQ-5D and HUI3 showed a large correlation (Kendall’s Tau > 0.50) between the dimensions: mobility (EQ-5D) and ambulation (HUI3), anxiety/ depression (EQ-5D) and emotion level (HUI3), and pain/complaints (EQ-5D) and pain (HUI3). Both utility measures discriminated between clinically different groups. Groups with more severe tinnitus had lower utility scores (Kruskal-Wallis χ² = 8.4, p = 0.015 and χ² = 26.9, p < .001 for EQ-5D and HUI3 respectively). CONCLUSIONS: This study shows that different utility measures lead to different utility scores among tinnitus patients. However, both measures are capable of discriminating between clinically different groups. Further research is conducted to show responsiveness of both measures to decide which is preferred in a tinnitus population. Results will be presented at the conference.

ROLE OF DISEASE SPECIFIC INSTRUMENTS IN THE MEASUREMENT OF HEALTH-RELATED QUALITY OF LIFE IN CANCER CLINICAL TRIALS

Narvillkar P1, Mahajan A, Dimri S, Kumar R, Sehgal M1

1Heron Health Private Ltd, Chandigarh, India

OBJECTIVES: Assessment of the type of instrument used to measure health-related quality of life (HRQoL) in published cancer clinical trials. METHODS: We conducted a keyword search of Medline for cancer clinical trials, published over last five years in English. The inclusion criteria were: adult cancer patients; assessment of HRQoL as an outcome and at least one active comparator treatment arm(s). The most common diagnosis was non-small cell lung cancer (19%). Use of HRQoL instruments was identified and 42.6% (336) were included. The reasons for exclusion were: disease (9.9%), intervention (69.3%), outcome (12.6%) and study design (8.2%). 42 studies (12.5%) were placebo-controlled while 201 (59.8%) had active comparator treatment arm(s). The most common diagnosis was non-small cell lung cancer (19%). Use of HRQoL instruments was identified in 211 studies. Of these, specific instruments were used in 187 studies; including cancer specific in 182, population specific in 4 and signs and symptoms specific in 1 study. In 103 studies, disease specific instruments (modules) were related to particular type of cancer (studies with breast; colon; brain; prostate; lung; head & neck; and pancreatic cancers). The EORTC and FACT questionnaires were widely used. Generic instruments were used in 23 (6.8%) studies, most common being SF-36 followed by EuroQol group questionnaire. Both generic as well as specific instruments were used in 37 studies. A decrease in the use of specific HRQoL instruments was observed (62% in 2003 vs. 33% in 2008). Use of specific and generic instruments was similar for trials with active and non-active comparators. CONCLUSIONS: Application of generic HRQoL instruments in cancer clinical trials remains low. Use of specific HRQoL instruments in these trials appears to have declined in the last five years.