

ateness of the resulting test questionnaire. After revision, the pilot questionnaire was created. **RESULTS:** Concepts elicited during group discussions revolved around pleasure and health. The test questionnaire consisted of 199 items divided into six modules: “grocery shopping”, “cooking”, “places where meals are eaten”, “conviviality”, “eating and drinking”, and “eating habits and health”. Items within the first five modules assess subject behaviour and benefits (pleasure, psychology, digestion, physical condition); the module “eating habits and health” assesses beliefs. Cognitive interviews led to minor rewordings, removal and addition of items. The resulting pilot questionnaire consisted of 174 items distributed across the 6 aforementioned modules. **CONCLUSIONS:** We developed a unique tool that comprehensively assesses the full picture of well-being related to food and eating habits in the general population. A validation study is underway to establish the scoring and ascertain the psychometrics of the instrument before it can be used in clinical studies.

PRM174

METHODOLOGY AND DEVELOPMENT OF ‘POLISH DICTIONARY OF QUALITY OF LIFE TERMS’

Golicki D¹, Farkowski MM², Grabowska-Krawiec P³, Szkulciecka-Debek M⁴, Zawodnik S⁵, Baran J⁶, Borowiec L⁷, Czech M⁵

¹Department of Experimental and Clinical Pharmacology, Medical University of Warsaw, Warsaw, Poland, ²Institute of Cardiology, Warsaw, Poland, ³Department of Immunology and Clinical Allergology, Military Institute of Medicine, Warsaw, Poland, ⁴Department of Dermatology, Military Institute of Medicine, Warsaw, Poland, ⁵Department of Pharmacoeconomics, Medical University of Warsaw, Warsaw, Poland, ⁶Postgraduate Medical School, Grochowski Hospital, Warsaw, Poland, ⁷Servier Polska Sp. z o.o., Warsaw, Poland

Lack of an established Polish terminology is a serious limitation of the development of health-related quality of life (HRQoL) studies in Poland. **OBJECTIVES:** To develop Polish dictionary of terms used in the studies of HRQoL. **METHODS:** In February 2012, HRQoL Special Interest Group of ISPOR Poland Chapter took on the task of preparing Polish dictionary of HRQoL terms. Following steps were planned: (1) preparation of a list of target English-language terms, (2) preparation of a reference list of translations typically used in Polish literature, (3) step-by-step translation of English terms by individual experts (4) analysis and approval of proposed translations by Expert Committee, (5) re-analysis of key terms, (6) preparation of pre-final vocabulary, (7) reviews by Review Committee, (8) preparation and publication of the final version. The list of English terms was based on following sources: popular English-language HRQoL textbooks, key words from papers published in leading peer-reviewed journals in the field, ISPOR guidelines concerning patient-reported outcomes, websites of generic HRQoL instruments. The reference lists of translations used in Polish literature was based on pharmacoeconomics and psychology textbooks, EBM dictionaries and HRQoL papers published in Polish peer-reviewed journals. Expert Committee was comprised of seven Polish investigators with vast experience in the field of HRQoL studies. Review Committee was formed by three authorities in the field of psychometrics, statistics and epidemiology. **RESULTS:** Till June 2013, there were 13 meetings of Expert Committee: three focused on the development of methodology and ten - on analysis and approval of proposed translations. Initially, we identified 1640 English terms from different sources. After removal of duplicates, final English list comprised of 1314 terms. Pre-final version of vocabulary, ready for peer-review, consists of 1051 proposed Polish translations. **CONCLUSIONS:** We anticipate, that dictionary prepared by the ISPOR Poland Chapter will support practical usage of PRO in Poland.

PRM175

MAPPING THE OXFORD HIP SCORE (OHS) TO EQ-5D: A TEST OF MODEL PERFORMANCE

Sungher DK, Diamantopoulos A
Symmetron Limited, Elstree, UK

OBJECTIVES: The lack of preference-based utility data places great importance on the accuracy of mapping functions. The objective of this study is to assess the predictive accuracy of statistical models which address the unique properties of EQ-5D. **METHODS:** A large dataset from the Patient Reported Outcome Measures (PROMs) programme reporting EQ-5D and OHS values for patients who have undergone total hip replacement, during April 2010 and March 2011, was used to develop 6 mapping functions using different statistical methods: Ordinary Least Squares (OLS), standard Tobit, adjusted Tobit, two-part logit (TPL), response-mapping and censored least absolute deviation (CLAD). Three different model specifications were investigated, including the total OHS, individual item score and individual item responses. Each model specification was examined using goodness-of-fit measures. The predictive accuracy of each model was analysed using the mean absolute error (MAE) and mean squared error (MSE). Model performance was compared in an internal and external validation. **RESULTS:** The OHS individual item response variables proved to give the best model fit and were therefore used across all models. The OLS and TPL models consistently demonstrated the highest predictive accuracy, providing the lowest MSE and the closest estimation of the mean EQ-5D. The response-mapping approach was the poorest predictor in estimating individual values; however it was able to predict the median with perfect precision. Models using Tobit and CLAD frameworks provided the poorest predictions. **CONCLUSIONS:** The OLS and TPL models proved to be the most accurate in predicting EQ-5D on an individual level, whilst the response-mapping model is recommended for predicting the median. Using inaccurate mapping functions such as the Tobit models developed in this study can have a substantial impact on CEA results and reimbursement decisions.

PRM176

TRANSLATION AND CULTURAL ADAPTATION OF THE SF-6D QUESTIONNAIRE FOR USE IN ARABIC-SPEAKING COUNTRIES

Dawoud DM¹, Soliman AM², Alhyas L³, Amin MEK⁴, Hussein M⁵, Mohamed O⁴

¹Cairo University, Cairo, Egypt, ²AbbVie Inc, Libertyville, IL, USA, ³Ministry of Health, Abu Dhabi, United Arab Emirates, ⁴University of Wisconsin-Madison, Madison, WI, USA, ⁵University of Tennessee, College of Pharmacy, Memphis, TN, USA

OBJECTIVES: The use of pharmacoeconomic evaluations, e.g. cost-utility analysis (CUA), in resource allocation is gaining attention in Arabic-speaking countries. The Short Form-6D (SF-6D) is a generic preference-based measure of health-related quality of life (HRQoL) that can be used to generate health-state utilities for use in CUAs. The objective of this study is to translate and culturally-adapt the SF-6D for use in Arabic-speaking countries, with particular focus on Egypt and the United Arab Emirates. **METHODS:** The study followed the International Quality of Life Assessment (IQOLA) methodology. Two forward translations, one consensus and one backward translation were undertaken. The translators (professional linguists and bilingual pharmacoeconomists) reported the difficulties encountered in the translation process. An advisory committee of six researchers and three clinicians, who are native Arabic speakers and proficient in English language, assessed the consensus version for accuracy, cultural compatibility and cognitive burden. The difficulties encountered during the process were categorized as grammatical, idiomatic, semantic/conceptual, and cultural. The backward translation was completed by a professional medical translator, reviewed and assessed by the committee. **RESULTS:** Five items raised discussion during the process for grammatical (1 item), semantic (1 item), idiomatic (1 item) and cultural (2 items). For example, “emotional problems” had to be culturally adapted and “down-hearted and low” had to be substituted. The committee members approved the forward translation as linguistically and grammatically accurate. Minor changes were made to the forward translation to improve cultural appropriateness. The Backward translation did not reveal major problems and equivalence to the original was confirmed following committee review. **CONCLUSIONS:** The translation and cultural adaptation of the SF-6D into Arabic resulted in a conceptually equivalent and culturally appropriate version. Psychometric validation and a valuation survey will be needed to assess its validity for use in the target populations.

PRM177

ASSESSING MEASUREMENT EQUIVALENCE OF DIFFERENT FORMS OF ADMINISTRATION OF THE CAMBRIDGE PULMONARY HYPERTENSION OUTCOME REVIEW (CAMPHOR) USING RASCH ANALYSIS

Twiss J¹, McKenna S¹, Graham JE¹, Swetz KM², Sloan J², Gombert-Maitland M³

¹Galen Research Ltd, Manchester, UK, ²Mayo Clinic, Rochester, MN, USA, ³University of Chicago Medicine, Chicago, IL, USA

OBJECTIVES: Electronic formats of patient-reported outcome (PRO) measures are now routinely used in clinical trials. Their use promises a range of benefits such as improving access to patients, increasing compliance, reducing missing data and avoiding errors associated with data entry. When changing from paper and pen to an electronic administration it is necessary to establish their equivalence. This is the first study to evaluate the use of Rasch analysis for this purpose. **METHODS:** Three groups of US patients with pulmonary hypertension participated. A clinical sample completed an electronic version of the CAMPHOR (*e-sample*) and two different samples completed the pen and paper administration (*pp1* and *pp2*). Analyses were conducted on the CAMPHOR activity limitations and quality of life (QoL) scales. The three databases were analysed separately for fit to the Rasch model. Data were then combined, re-analysed and assessed for differential item functioning (DIF). **RESULTS:** The three datasets were matched randomly for sample size (n=147). Mean age (years) and percentage male respondents were as follows: *e-sample* (51.7, 16.0%); *pp1* (50.0, 14.0%); *pp2* (55.5, 40.4%). After minor adjustments to the three datasets, fit to the Rasch model was achieved (Chi² values for activity limitations and QoL respectively were *e-sample* (0.11, 0.07); *pp1* (0.18, 0.12); *pp2* (0.40, 0.30)). Fit was also achieved for the combined sample after minor adjustments (activity limitations Chi² = 0.21, QoL Chi² = 0.12). Importantly, no evidence of DIF by mode of administration was found. **CONCLUSIONS:** Equivalence of the electronic and pen and paper administrations of the CAMPHOR was established. The results showed how the Rasch model can be utilized to determine the equivalence of alternative formats of PRO measures. This methodology has the added advantage of avoiding the need for complex study designs such as matching samples for disease severity or repeated administration of alternative formats of questionnaires.

PRM178

MODELLING THE RELATIONSHIP BETWEEN THE WOMAC OSTEOARTHRITIS INDEX AND EQ-5D

Wailoo AJ¹, Hernández M¹, Escobar Martínez A²

¹University of Sheffield, Sheffield, UK, ²Hospital Universitario Basurto, Bilbao, Spain

OBJECTIVES: Economic evaluation typically is conducted using health state utilities to estimate treatment benefits. However, such outcomes are often missing from studies of clinical effectiveness. This study aims to bridge that gap by providing appropriate methods to link values from the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) to the EQ-5D utility instrument. **METHODS:** Patients from a large registry of Spanish patients (n=7072 observations) with knee or hip osteoarthritis who completed both WOMAC and EQ-5D was used. A mixture model approach was used based on distributions bespoke to the EQ-5D UK value set to estimate EQ-5D as a function of WOMAC pain, stiffness and function subscores. **RESULTS:** A five class mixture model provides very close fit to the observed data at all levels of disease severity. The overall mean (0.542 vs 0.542), median (0.620 vs 0.636) and the percentage of observations at full health (15 vs 14.8) were very similar between the observed data and the estimated model respectively. Stiffness has limited relationship to EQ-5D, whereas functional disability and pain are strong predictors. **CONCLUSIONS:** EQ-5D can be reliably estimated from WOMAC subscale scores without any systematic bias using the results based on a bespoke mixture model method.

PRM179

DIFFERENTIAL ITEM FUNCTIONING IN A SATISFACTION ITEM BANK

Campillo-Álvarez Á, Rodríguez-Aguilella A, Castejón N, Cuervo J, Rebollo P

LASER Analytica, Oviedo, Spain