

population. EU5 norms may be useful in research applications inferring to the EU as a whole, particularly when sample size precludes analysis at the country level.

PMU90

HEALTH PROBLEMS IN HUNGARIAN ELDERLY OUTPATIENTS MEASURED BY THE EQ-5D-3L: COMPARISON WITH A POPULATION NORM FOR CENTRAL EASTERN EUROPE

Zrubka Z¹, Beretzky Z¹, Brodzsky V¹, Rencz F², Gulácsi L¹, Prevolnik Rupel V³, Golicki D⁴, Péntek M⁵

¹Corvinus University of Budapest, Budapest, Hungary, ²Hungarian Academy of Sciences, Premium Postdoctoral Research Programme & Corvinus University of Budapest, Department of Health Economics, Budapest, Hungary, ³Institute for Economic Research, Ljubljana, Ljubljana, Slovenia, ⁴Department of Experimental & Clinical Pharmacology, Medical University of Warsaw, Warsaw, Poland

OBJECTIVES: In the Central Eastern European (CEE) region sample sizes of EQ-5D-3L population norms for the elderly are relatively small, and are not representative for education, a major determinant of health. We investigated the occurrence of health problems by the EQ-5D-3L dimensions above 65 years of age in chronic outpatients versus the general population of the CEE region. **METHODS:** From three recent large EQ-5D-3L studies conducted on large representative population samples in Hungary, Poland and Slovenia, after calibrating for age, gender and education, we estimated a population norm for the CEE region. We investigated the occurrence of problems in 6 chronic conditions from cross-sectional studies conducted in ambulatory specialist centres in Hungary. Odds ratios (OR) adjusted by age and gender were calculated for each EQ-5D-3L dimension, as well as for any problems and severe problems across all dimensions. **RESULTS:** The population norm database involved 997 65+-year-old respondents (age range: 65-92 years, female: 61.5%). We included 678 elderly outpatients with the following conditions: age-related macular degeneration (AMD), benign prostatic hyperplasia (BPH), dementia, bladder cancer (BC), osteoporosis (OP) and peripheral artery disease (PAD). Health problems in any domain occurred more frequently compared to the general population in dementia ($p < 0.05$) and less frequently in BPH ($p > 0.05$). The difference was not significant in four conditions. The prevalence of any problems was greatest in mobility and pain/discomfort for PAD (OR: 5.5 and 2.1, respectively) and in self-care, usual activities and anxiety/depression for dementia (OR: 2.5, 3.1 and 3.8, respectively). Severe problems of mobility, self-care, usual activities and anxiety/depression were most prevalent in dementia (OR: 10.2, 13.0, 16.7 and 16.4, respectively), and in pain/discomfort for PAD (OR: 6.3). **CONCLUSIONS:** The problem frequencies varied greatly among chronic disorders. The regional EQ-5D-3L population norm allows to overcome the challenges of assessing the health profiles of elderly patient populations.



PMU91

USE OF EQ-5D IN CENTRAL AND EASTERN EUROPE 2000-2015: NEUROLOGICAL DISORDERS

Prevolnik Rupel V¹, Divjak M², Golicki D³, Rencz F⁴, Gulácsi L⁵, Brodzsky V⁶, Baji P⁷, Závada J⁸, Petrova G⁹, Rotar A⁷, Simon J⁸, Zrubka Z¹, Péntek M¹

¹Institute for Economic Research, Ljubljana, Ljubljana, Slovenia, ²DOBA Fakulteta, Maribor, Slovenia, ³Department of Experimental & Clinical Pharmacology, Medical University of Warsaw, Warsaw, Poland, ⁴Corvinus University of Budapest, Budapest, Hungary, ⁵Institute of Rheumatology, Prague, Czech Republic, ⁶Medical University-Sofia, Faculty of Pharmacy, Sofia, Bulgaria, ⁷University of Amsterdam, Amsterdam, The Netherlands, ⁸Medical University of Vienna, Vienna, Austria

OBJECTIVES: The aim of our study was to systematically review and analyse the available EQ-5D literature in selected CEE countries in neurology, a clinical area with increasing economic importance. **METHODS:** To identify studies using EQ-5D two systematic literature searches were performed with same search criteria using PubMed, EMBASE, Web of Science, CINAHL, PsycINFO, The Cochrane Library and the EuroQol Group database: the second for the period from July 1, 2015 up to April 1, 2018 built on the first one covering the period up to July 1, 2015. Local journals were hand-searched. The countries included were Austria, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. **RESULTS:** Altogether 589 papers were found and 33 were included in the database after the exclusion criteria. Twenty of them were in English. The first study was launched in 1999 and published in 2004. Most studies were from Hungary (48%) and none from Romania and Slovakia. Ten of the studies focused on patients with multiple sclerosis (MS) and 9 on Parkinson's disease, while the research on other diseases is rare. A total of 10,898 patients were involved. In MS the average index scores range from 0.49 in Austria to 0.80 in Poland with the weighted average of 0.75. In five out of 33 studies (15%) the reported EQ-5D index score had to be excluded as its calculation was methodologically inappropriate. **CONCLUSIONS:** Significant increase in the number of studies in CEE countries is noticed since 2012. Although some diseases are well researched, the research in a certain disease area is concentrated to a single country – e.g. research in PD to Hungary and research in MS to Poland and Austria. The coordinated research plan in CEE is needed or the health outcomes will continue to be scattered, methodologically incorrect and incomparable across diseases and across countries.



PMU92

CAN THE EQ-5D-3L PREDICT POST-HOSPITALIZATION HEALTHCARE USE AND OUTCOMES?

Al Sayah E, Ohinmaa A, Johnson JA

School of Public Health, University of Alberta, Edmonton, AB, Canada

OBJECTIVES: To examine whether EQ-5D-3L completed at the time of discharge from hospital can predict post-hospitalization healthcare use and outcomes. **METHODS:** Data from a longitudinal observational study of adults discharged from hospitals in Alberta, Canada, was used. Each of the EQ-5D-3L dimensions was analyzed as a dichotomous variable. The EQ-5D-3L misery-index, index and VAS scores were also used. Outcomes, including outpatient visits, emergency



department (ED) visits, re-hospitalizations, or death at 30-days and 90-days were treated as dichotomous. Logistic regression models adjusted for age, sex, income, Charlson comorbidities score, and frailty were used. **RESULTS:** Average age of patients (N=495) was 63 years (SD1.0) and 50.5% were female. At discharge, more than half (58.4%) reported problems in mobility, 28.3% in self-care, 62% in usual-activities, 62.4% in pain/discomfort, and 42.2% in anxiety/depression. The average misery index was 7.9 (2.0), index score was 0.70 (0.22), and VAS score was 63.7 (18.4). In adjusted analysis, there were no significant associations between EQ-5D-3L at discharge with any 30-days post-discharge outcomes. For 90-days post-discharge outcomes, mobility, self-care and pain/discomfort were not associated with any outcome. However, patients with problems in usual-activities were 1.7 times (95%CI 1.1,2.6) more likely to have an ED visit and 2.0 times (1.2,3.3) more likely to get re-hospitalized/die than their counterparts. Additionally, patients with moderate-severe anxiety/depression were less likely to have an outpatient visit (OR=0.55,95%CI 0.34,0.90), but 1.7 times (1.1,2.6) more likely to have an ED visit, and 1.7 times (1.1,2.8) more likely to either get re-hospitalized/die within 90 days. The misery-index was associated with all outcomes at 90 days. The index-score was significantly associated with ED visits, and the composite outcome. VAS-score was not associated with any outcomes within 90 days. **CONCLUSIONS:** The EQ-5D-3L, particularly the usual-activities and anxiety/depression dimensions, misery index and index score, could be used to predict patients' post-hospitalization healthcare use and outcomes.

PMU94

DEVELOPMENT OF JAPANESE PREFERENCE WEIGHT FOR THE ADULT SOCIAL CARE OUTCOMES TOOLKIT (ASCOT) SCT4

Shirowa T¹, Moriyama Y¹, Nakamura-Thomas H², Morikawa M³, Fukuda T¹, Batchelder L⁴, Saloniki E⁴, Malley J⁵

¹National Institute of Public Health, Wako, Japan, ²Saitama Prefectural University, Koshigaya, Japan, ³Tsuda University, Tokyo, Japan, ⁴University of Kent, Canterbury, UK, ⁵London School of Economics and Political Science, London, UK

OBJECTIVES: In developed countries, progressive rapid aging is increasing the need for social care. Our research team has developed a Japanese version of the Adult Social Care Outcomes Toolkit (ASCOT) SCT4, which measures social care-related quality of life (ScRQOL) and uses for economic evaluation. This survey determined Japanese preference weights for the ASCOT SCT4. **METHODS:** We recruited 1050 Japanese respondents from 5 cities (Sapporo, Tokyo, Nagoya, Osaka, and Fukuoka) adjusted for age category and sex. In the best-worst scaling (BWS) phase, respondents were asked to rank various health states as "best", "worst", "second best" and "second worst", as described by the ASCOT (repeating this process 8 times). After the BWS phase, they were asked to evaluate 8 different health states by composite time-trade off (cTTO). Four (BWS) and eight (TTO) blocks were randomly allocated to respondents. The nested logit model was used to analyze the BWS data, used by Netten et al. (2012). The association between scores as measured by cTTO and latent BWS scores was used to estimate a scoring formula that would convert BWS scores to utility scores. **RESULTS:** Japanese BWS weightings for ASCOT SCT4 were successfully estimated and found to be generally consistent with the UK preference weights. However, the coefficients "Control over daily life" and "Occupation" for level 3 differ markedly between the UK and Japan. The Japanese worst utility score was lower than UK because Japanese TTO results showed more negative valuations. In general, the Japanese preference score (for more than 90% of health states) was lower than that of the UK. **CONCLUSIONS:** We successfully obtained the Japanese preference weights for ASCOT. This is the first report to have developed Japanese ScRQOL preference weights using the ASCOT SCT4. Our study contributes to measurement and understanding of outcomes of social cares in Japan.



PMU96

DUTCH HEALTH STATE UTILITIES FOR INFERTILITY AND SUBFERTILITY

Krol M¹, Nap A², Michels RM¹, Veraart CP³, Goossens LM⁴

¹IQVIA, Amsterdam, The Netherlands, ²Rijnstate, Arnhem, The Netherlands, ³Merck KGaA, Darmstadt, Germany, ⁴Erasmus University Rotterdam, Rotterdam, The Netherlands

BACKGROUND: Health state utility values allow for comparison of treatments across different diseases. Utility values for fertility-impaired health states are currently unavailable. Such values are necessary in order to determine the relative costs-effectiveness of fertility treatments. **OBJECTIVES:** This study aimed to determine utility weights for infertile and subfertile health states. In addition, it explored the Dutch general population's opinions regarding the inclusion of infertility treatments in the Dutch health insurers' basic benefit package. **METHODS:** An online questionnaire was designed to determine the health-related quality of life values of six fertility-impaired health states. The study population consisted of a representative sample of the Dutch adult population. Respondents were asked to evaluate the health states through direct health valuation methods, i.e. the Visual Analogue Scale (VAS) and the Time Trade-Off (TTO) method. In addition, respondents were asked about their opinions regarding reimbursement of fertility-related treatments. **RESULTS:** The respondents' (n=767) VAS scores for the infertile and subfertile health states ranged from 0.640 to 0.796. TTO utility values ranged from 0.792 to 0.868. Primary infertility and subfertility was valued lower than secondary infertility and subfertility. In total 29% of the respondents stated that fertility treatments should be fully reimbursed by the health insurance basic benefit package and 8% of respondents stated fertility treatments should not be reimbursed at all. The 63% of respondents who were of opinion that fertility treatments should be partly reimbursed, thought (on average) that 4.0 IVF attempts should be reimbursed by the basic benefit package. **CONCLUSIONS:** Having fertility problems results in substantial disutilities according to the viewpoint of the Dutch general population. The results make it possible to compare the value for money of infertility treatment to that of treatments in other disease areas. There is

