

(31) for multiple sclerosis, 34 (33) for ankylosing spondylitis and 45 (33) for bipolar disorder. **CONCLUSIONS:** This study enabled ACCEPT data to be collected in real life for a variety of chronic diseases. These data can be of major interest to help evaluating and interpreting level of acceptance in future studies.

PIH49

ATTITUDE CHANGE AMONG 18-19 YEARS OLD BOYS AFTER SCHOOL-DRUG PREVENTION PROGRAM

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OBJECTIVES: The aim of our study was to explore the efficiency of “FÜGE” school-drug prevention program based on the students attitude change. **METHODS:** The research program was made at the Zepernowsky Károly Secondary Technical School with a standard questionnaire. Pre-test was made 10 days before and post-test 10 days after the school-drug prevention program. 94 people participated in the research. We processed our data with the help of MS excel 2007 and we prepared a T-test with it. **RESULTS:** The results showed that the rate of those, who know everything about drugs have grown from 52,1% to 59,6% and those, who did not know anything decreased from 3,2% to 2,1% (p=0,181) before and after the drug-prevention program. The effect of the “FÜGE” program also changed the student's sense of danger regarding drugs significantly. There was a significant change (p=0,008) in the trying of marihuana and hashish. Based on the given answer's T-tests there were also significant differences in the test of hallucinogenic drugs (p=0,012) and amphetamine, speed (p=0,046). There was an almost significant (p=0,071) correlation regarding the occasional usage of amphetamine, speed. Furthermore, after the program was made, significantly more students believes that trying (p=0,001), using occasionally (p=0,050) and using regularly (p=0,003) herbal drugs is dangerous. However, less than 7% percent of the students agreed the statements: “I have learned a lot from the occasions.” and “I received answers for a lot of question that I was interested in earlier.” **CONCLUSIONS:** “FÜGE” program is considered successful, because the participants' knowledge increased, their sense of danger changed, but only half of them had a positive opinion about the program's information-amount. We have to state that the changes in the knowledge about drug usage not necessarily lead to changes in behavior.

PIH50

PATIENT PERSPECTIVE: PRO COMPLIANCE AND EFFECTIVE REMINDER STRATEGIES

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OBJECTIVES: Survey data results providing patient perspectives on compliance and reminder-use in studies including Patient Report Outcomes (PROs) is shared. This presentation looks at patients' preferred reminder modes, identifies what may impact diary compliance, and evaluates reminder strategies. **METHODS:** The survey was conducted in 2013, including patients globally (N=405) who participated in at least one clinical trial in the past two years with patient diaries. Patients were asked about their most recent diary experience (including compliance), future trial participation (including preferences for receiving reminders-content/modality/timing), and personal technology behaviors. **RESULTS:** Only 53.6% of patients reported always being compliant with completing diary entries. Factors associated with non-compliance were age, dissatisfaction, and hard to remember diaries. Reasons for non-compliance included: “They Forgot” (51.4%), “Too Busy” (41.1%), “Access” (27.6%), and “Other” (2.7%). Patients (77.2%) provided high attractiveness ratings for reminders in future trials. Preferred reminder modes include: text messages (67.2%), hand-held alerts (34.3%), phone calls (34.1%), calendar alerts (32.6%), and email (6.2%). The majority of patients want to receive reminders for: diaries (97.3%), appointments (95.8%), and medication (95.0%). Most patients indicated checking text messages and emails daily. Significantly more patients check text messages immediately compared to email suggesting that text messages may be more effective for reminding patients. Majority reported owning some mode of technology; therefore, reminder strategies should be tailored to patient mode availability. **CONCLUSIONS:** As self-reported by patients, forgetting is the top reason for non-compliance which can be highly prevalent in trials. Results show patients feel reminders are helpful. Patients would like to be reminded of various events. Reminder strategies should account for patient preferences and mode availability to keep patient satisfaction high. Effective reminder strategies can positively affect compliance, satisfaction and patient experiences in clinical trials. Reminder practices can also be rolled out to benefit compliance in health care.

PIH51

USING THE ANALYTIC HIERARCHY PROCESS TO DERIVE HEALTH STATE UTILITIES FROM ORDINAL PREFERENCE DATA

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OBJECTIVES: EQ-5D is a standardised instrument for use as a measure of health outcome. There are well-documented problems regarding how best to measure worse than dead states using the Time Trade Off (TTO) approach. We attempted to generate utilities from ordinal relationships between health states (HSs) to overcome these issues, using the Analytic Hierarchy Process (AHP) approach. AHP is a multiple criteria decision analysis technique based upon pairwise comparisons, useful for structuring complex prioritisation problems. It has been widely used in health settings. **METHODS:** The technique outlined was applied to the Measurement and Valuation of Health (MVH) study dataset. The number of occasions that each HS was preferred to each of the others was measured and represented by a 45*45 matrix. This was subsequently transformed into a scale indicating the significance of the difference between each pair of HSs. We describe 5 approaches to structure pairwise comparisons of HS preference (2 concave, 2 convex, 1 linear). A score for each HS was derived from this matrix's principal eigenvector, and the matrix's consistency calculated. **RESULTS:** All approaches predicted the rankings of HSs found in the MVH

report well. However, the utilities subsequently derived followed an unconventional, bunched shape compared to the original study. By optimizing the parameters in order to minimize the sum of squared errors between approaches, a more suitable approach (“Beta rank fit”) was identified. Utilities could in principle therefore be derived using this method alone, without recourse to TTO models. **CONCLUSIONS:** This paper outlines an approach that may be suitable for converting ordinal preference data into cardinal utilities, and offering a number of advantages over previously described approaches. Ranking exercises for participants are considerably easier to carry out than full TTO studies, so the approach may be suitable for resource limited settings or for underrepresented subpopulations.

PIH52

A UTILITY ALGORITHM FOR THE PRESSURE ULCER QUALITY OF LIFE – UTILITY INSTRUMENT (PUQOL-UI)

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OBJECTIVES: Pressure Ulcers are an important health care problem, recognized as ‘Never Events’ by the US Government. To date, there is no instrument to capture their health utility impact, or the value of treatments and prevention strategies. The Pressure Ulcer Quality of Life Utility Instrument (PUQOL-UI) is a condition specific preference-based measure designed to capture the impact of having a pressure ulcer (PU) on an individual's health related quality of life and will allow calculation of QALYs necessary for cost-effectiveness analyses. PUQOL-UI consists of 7 domains (Pain, Mobility, Activities of Daily Living, Energy, Depression, Burden and Social Function). Each domain has three possible response levels: ‘No Bother’, ‘Little Bother’, and ‘A lot of Bother’. **METHODS:** A valuation exercise obtained Time Trade-Off values for 51 PUQOL-UI health states in 200 interviews with the UK General Population. OLS, Random Effects and Fixed Effects linear regression models were fitted and evaluated using tests of standard goodness of fit and estimation and validation sample predictive performance. **RESULTS:** The Random Effects model was superior in fit and predictive performance, with 83% of states predicted to within 0.1 of the observed mean. Preliminary analysis of the psychometric properties of the PUQOL-UI indicates adequate levels of validity and may offer measurement advantages over the generic EQ-5D measure. **CONCLUSIONS:** The PUQOL-UI is a useful addition to the portfolio of condition specific utility measures available to researchers interested in economic evaluation of technologies for the management of pressure ulcers, and health care decision makers responsible for funding such technologies.

PIH53

TIME-TRADE-OFF MODELLING OF HEALTH UTILITY VALUES FOR MENOPAUSAL SYMPTOMS AND THEIR TREATMENT

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OBJECTIVES: Impaired Health-Related Quality of Life (HRQoL) of women due to various symptoms of menopause impairments has been given increased importance in the past years. The objective of the present study is to estimate utility values for symptoms relevant for menopause-specific disturbances and to convert them into women's willingness to give away months of life (time-trade-off) for relief of those symptoms. **METHODS:** A time-trade-off (TTO) model was applied to estimate the utilities of 7 symptoms caused by menopause impairments. A German version of the QualiPause Inventory (QPI) was used for assessing the severity of the symptoms. A quota sample of 478 women, aged 45 to 60 years, was interviewed. Health states were presented to participating women on a mobile computer screen, and they were asked to specify the willingness to give away months/years for the relief of the symptoms, using time-scaled graphic slide controls visible on the computer screen. A total of 45 health states were valued out of a potential of 2,187 defined by the classification system. Logistic regression and Bayes methods were used to estimate the utility values. Utility values were converted into trade-off willingness for life months. Both methods led to almost identical results. **RESULTS:** Willingness to trade-off life months for relief of symptoms ranges between Zero and 132 months of life with a median of 12 months. 25% of the women were willing to trade-off more than 45 months, 5% more than 100 months and 1% even 132 months or more. Among the more severely rated symptoms are dryness of the vagina, bleedings, and anxiety. **CONCLUSIONS:** Time-Trade-Off techniques can be used to estimate preference values for health states affected by menopausal symptoms and their relief. These values can be used to estimate differential outcomes of hormone replacement therapy.

PIH54

GEOGRAPHICAL VARIATIONS OF HEALTH PERCEPTION IN THE US, USING BRFS DATA 2012

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OBJECTIVES: To determine whether and how the location influences the way people perceive their health in the US using BRFS data 2012. The explained variable, general health, has five modalities (excellent (1), very good (2), good (3), fair (4) and poor (5)). **METHODS:** Using BRFS data 2012, a descriptive study and chi-square test have been conducted crossing the general health variable with the location variable. This variable has been combined in ten modalities (New England, Mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, Pacific and Guam/Puerto Rico). It has been followed by an ordered logit model to explain general health variable by the location using stepwise selection. **RESULTS:** The study has been carried on 474,124 weighted individuals from BRFS data 2012. The chi-square value is 962,244 and the p-value was lower than 0.001. Some regions such as Pacific, mid Atlantic, mountain and new England were found in a higher proportion among the excellent and very good health groups than in all the population (P: 11.7% and 10.6% vs 10.5%; MI: 11.9%,

11.6% vs 11.2%; M: 9.1% and 8.8% vs 8.4%; NE: 5% and 4.7% vs 4.3%). When others such as the East South Central and the West South central regions were found in a higher proportion among the good, fair and poor health groups (ESC: 5.8%, 6.7% and 9.6% against 5.6% WSC: 13.6%, 13.4% and 15.6% vs 12.5%). The coefficients found in the ordered logit model were all significant and have confirmed the descriptive study. **CONCLUSIONS:** The location influences the way people perceive their health in the US. Next step would be to look at other socio-demographics variables such as people's revenue, race or education.

PIH55

A COMPARISON OF VALUE FOR HEALTH STATES WORSE THAN DEAD BETWEEN JAPAN AND UK

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OBJECTIVES: To clarify the difference of value for health states worse than dead (WTD) between Japan and UK. **METHODS:** A web survey was conducted asking respondents whether each health states is WTD before discrete choice experiment (DCE) tasks (DCE results not described). Health states were described using the EQ-5D-3L descriptive system. The 48 health states were blocked into 24 sets for DCE tasks. All respondents were asked 12 sets tasks randomly. We compared value for WTD between Japan and UK, UK's value referred the article (Bansback et al., 2011). **RESULTS:** A sample of 1242 members of the market research panel was invited by email to participate in the survey. Of these, 1085 (87%) completed all tasks. The mean age of participants were 49.5 years (SD=16.6). High numbers of value of WTD were confirmed. 50.5% of respondents judged health state 33333 to be value of WTD, but 77.0% judged in UK. Similarly, 45.7% and 41.0% of them judged to be value of WTD for health state 33332 and 33323, respectively (72.0% and 60.0% in UK). **CONCLUSIONS:** Our findings suggest that Japanese value of worse health states not to be low in comparison with UK's. On the other hand, it was thought that participants might not understand the tasks.

PIH56

PATIENT-REPORTED FALL RELATED HEALTH CARE SERVICES IN ELDERLY WOMEN

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OBJECTIVES: Although the falls in elderly people lead to serious health consequences, the economic burden is underestimated. The aim of this study was to examine the fall-related out-patient medical care in community-dwelling elderly women. **METHODS:** Women aged 65 years and older who visited National Osteoporosis Center for diagnostic or treatment procedures, were interviewed by phone recording the consequences and health care procedures related to every fall sustained during the previous 12 months. **RESULTS:** The study population consisted of 310 women who reported one or more fall, one in three of them had fallen twice or more. Of all women who fell, 280 (90.3%) reported their fall resulted in an injury, and 77 (15.3%) falls led to bone fractures. Fall related medical care was provided to 135 women: to 43.5% of those who fell and 48.2% of those who sustained injuries from falling received medical attention. Among these, the highest percentage reported using of out-patient medical services. The number of out-patient visits reported (535 visits in total) ranged from 1 to 13, and in 70 cases (51.9%) – from 2 to 4 visits. Different types of out-patient health care were used by 43.5% of women who fell. The majority of specialists visited were orthopaedist, surgeon, and radiologist. An ambulance was used by 11.9%, and family doctor was visited by 19.4% of fallers. The mean number of health care procedures was higher in women who sustained a fracture, as compared to those who did not: 4.9 (95% CI 4.4–5.4) and 0.67 (95% CI 0.29–0.76), respectively; $p < 0.0001$. **CONCLUSIONS:** From all self-reported falls registered in women over 65 years, 90.3% resulted in any injuries. The mean number of out-patient visits per faller was 1.73 (95% CI 1.36–2.1).

PIH57

LONG-TERM GRADING OF HEALTH-RELATED QUALITY OF LIFE OF CARE-NEEDED ELDERLY: A 2-YR FOLLOW-UP STUDY

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OBJECTIVES: To assess the long-term grading of health-related quality of life (HRQL) of care-needed elderly who had received the occupational therapy in Japan. **METHODS:** We carried out a 2-year follow-up study of multicenter trial. The subjects were recruited from 26 nursing homes in Japan. The proxy of the subjects completed a questionnaire of the Health Utilities Index Mark3 (HUI3). We tested the long-term effect of occupational therapy and aged natural grading of care-needed elderly. **RESULTS:** 55 male and 85 female subjects remained at final follow-up. The mean age of subjects was 76.9 years. The global score of HUI3 of baseline was 0.377 (SD=0.270). Their score was improved for three month (mean score=0.418, SD=0.284), but had deteriorated to 0.328 (SD=0.324) 2-year later. Speech, Ambulation, Emotion and Cognition had deteriorated significantly among 8 attributes of HUI3. In regression analysis, higher care level significantly increased risk of deteriorating HRQL of care-needed elderly. **CONCLUSIONS:** Our findings suggest that occupational therapy have short-term effect for care-needed elderly. However, we cannot affirm that that occupational therapy has long-term effect. The aging may deteriorate their HRQL of care-needed elderly naturally.

PIH58

DIFFERENTIAL ITEM FUNCTIONING AND THE EQ-5D: EVIDENCE FROM THE UK HOSPITAL EPISODE STATISTICS

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OBJECTIVES: The EuroQol-5D (EQ-5D) is a generic patient-reported outcome measure (PROM) allowing comparisons to be made across different diseases and conditions. The instrument has been used in the UK's National Health Service (NHS) since 2009 to collect data from patients to assess the effectiveness of a number of surgical interventions. The aim of this study was to investigate whether the EQ-5D domains behave similarly across patient samples. **METHODS:** The data were derived from published Hospital Episode Statistics (HES) for April 2013 to March 2013. The EQ-5D had been completed by patients undergoing four surgical procedures: groin hernia repair (N=21831), hip (N=37800) and knee replacement (N=40429) and varicose vein repair (N=4681). The partial credit model (Masters, 1982) was applied to the data. Uniform differential item functioning (DIF) and non-uniform DIF (criterion difference > 0.5 logits) was assessed across the four interventions, gender, age group and the interactions. **RESULTS:** There was significant uniform DIF between the 4 interventions with 50% of all possible contrasts demonstrating DIF. The only domain not affected by DIF was Discomfort/Pain. There was DIF present in 2/3 of the contrasts for Anxiety/Depression, Mobility and Self-care and in 50% of the Usual Activities domain. DIF was also demonstrated across age groups for the Mobility and Anxiety/Depression domains. No DIF was found for gender. Finally, non-uniform DIF was demonstrated for age group by intervention. The Mobility domain showed the greatest degree of non-uniform DIF (20/24, 83% of the contrasts). **CONCLUSIONS:** The finding that the EQ-5D performs differentially depending on the patient group is an important one and means that the instrument should be used cautiously when comparisons across different surgical interventions are being made. This has potentially major ramifications for the use of the instrument as a measure of efficacy in the NHS.

PIH59

ANTENATAL DEPRESSION AND ITS RISK FACTORS AMONG WOMEN IN CHENGDU OF CHINA RESULTS FROM A HOSPITAL BASED SURVEY

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OBJECTIVES: Mental health of pregnant women is essential for maternal and neonatal health. However, there is lack of statistics of antenatal depression in China. The study aimed to investigate the prevalence of antenatal depression and explore its risk factors among pregnant women in Chengdu of China. **METHODS:** Women at third trimester of pregnancy were screened for symptoms of depression at antenatal clinics of West China Second Hospital between 28 October 2013 to 28 February 2014 based on the Chinese version of the Edinburgh Postnatal Depression Scale (EPDS) and a psychosocial risk factors checklist. **RESULTS:** A total of 2243 pregnant women aged 30.0±4.0 years participated in the survey. The mean EPDS score was 8.43 (standard deviation: 3.97). With a threshold score of 13, 14.2% were screened as having symptoms of depression. Age ($P=0.007$), education level ($P<0.001$), occupation ($P=0.001$), number of children (including the fetus) ($P=0.018$), number of miscarriage/abortion ($P=0.048$), and age of first pregnancy ($P=0.001$) were associated with antenatal depression in univariable analysis but not multivariable analysis ($P>0.05$ for all). Women who were dissatisfied with living conditions (OR=1.81; 95% CI: 1.38–2.38), had a poor relationship with mother-in-law relationship (OR=2.20; 95% CI: 1.65–2.92), and had unplanned pregnancy (OR=1.34, 95% CI: 1.02–1.76) were more likely to show antenatal depression symptoms. **CONCLUSIONS:** Our study shows antenatal depression might be prevalent among Chinese women in Chengdu. Early detection and intervention for antenatal depression may be necessitated to improve maternal and neonatal health after more systematic studies and reliable data are available.

PIH60

DISUTILITY ASSOCIATED WITH ERECTILE DYSFUNCTION IN THE MIDDLE-AGED OR OLDER MALES

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OBJECTIVES: Erectile dysfunction (ED) affects millions of males world-wide. While it is obvious that ED affects individuals Quality of Life, the quantifiable data on disutility associated with ED is still lacking. Moreover, the health utility – impact has not been studied using multiple health utility instruments previously. Our aim was to quantify the disutility caused by different levels of ED using two preference-based health utility indices simultaneously. **METHODS:** A total of 362 middle-aged or older (52–75 year old) males responded to the five-item International Index of Erectile Function (IIEF-5) in the cross-sectional sample of Savitaipale Study in 2007–2008. The lower score in IIEF-5 (range 1–25) corresponds to more severe ED. Health utility was assessed with two separate validated preference-based instruments, 15D and SF-6D. Data were adjusted for age, number of morbidities and marital status. Minimally important differences (0.02–0.03 for 15D and 0.04 for SF-6D) were used to guide the clinical interpretation of the results. **RESULTS:** Both 15D and SF-6D were significantly correlated with IIEF-5 ($p<0.001$). When examining the ED categorically, the adjusted marginal disutility (0.023 in 15D and 0.038 in SF-6D) was statistically significant ($p<0.05$) and clinically noticeable even at the mild ED (IIEF-5 score of 22–25). The marginal disutility progressively increased with increasing level of dysfunction, and was highest among the males who had not had sexual activity in past 6 months (0.060 in 15D and 0.093 in SF-6D, $p<0.001$ on both). On average, a one point decrease in IIEF-5 corresponded to a 0.003 decrease in 15D ($p<0.001$) and 0.004 in SF-6D ($p<0.001$). **CONCLUSIONS:** Erectile dysfunction can cause a substantial disutility on males. While this condition may not be life threatening or is not considered a major public health problem societally, the marginal disutility associated with severe ED is comparable or even greater than disutility associated with many chronic morbidities.

PIH61

REFERENCE EQ-5D-3L AND EQ-5D-5L DATA FROM THE ITALIAN GENERAL POPULATION

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