QALYs gained, utility scores for responders and nonresponders were derived from UK expert estimates and parent-proxy-ratings. Incremental cost-effectiveness ratios (ICERs) were calculated including a range of scenarios for maintenance treatment over an additional 12 months, and were subjected to multiple sensitivity analyses. **RESULTS:** Eight-week remission rates were 4% (MPH b.i.d.), 23% (MPH-IR t.i.d.), and 47% (MPH-OROS). For cost per response achieved, ICERs were €388 for MPH-OROS versus MPH-IR t.i.d. and €206 versus MPH-IR b.i.d.; ICERs for maintenance of response over 14 (2 + 12) months were €2,773 for MPH-OROS versus MPH-IR t.i.d. and €2,224 versus MPH-IR b.i.d., assuming that nonresponders discontinue drug treatment. Cost-per-QALY-gained for MPH-OROS versus MPH-IR t.i.d. was between €16,500 and €44,000, or €11,200 to €26,200 after adjustment for the Finnish 42% medication refund policy. Across all sensitivity analyses, MPH-OROS showed extended dominance over MPH-IR t.i.d. when compared to a Do Nothing scenario. **CONCLUSIONS:** By current standards, ICERs for MPH-OROS appear to fall well within the limits considered acceptable, especially considering the limited scope of the analysis (patient symptom improvement only, without taking into account long-term sequelae or impact on caregivers).

MH4

HEALTH SERVICE EXPENDITURES FOR CHILDREN AND ADOLESCENTS WITH AND WITHOUT ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN GERMANY—IMPACT OF COEXISTING CONDITIONS

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OBJECTIVES: Coexisting mental health disorders are common in patients with ADHD and may increase utilization of health care services and therefore expenditures. The present study was designed to address the impact of comorbidities on the direct medical costs incurred by statutory health insurance (SHI) for patients with and without ADHD. **METHODS:** For a retrospective matched cohort study, concomitant diagnoses and health care resource utilization data for patients age 7 to 19 years with a diagnosis of ADHD (F90.0 and/or F90.1) and for a randomly selected control group (matched 1:1 by age and gender) were extracted from the Nordbaden claims database (for year 2003), and were combined with SHI prescription data. Complete datasets were available for 2171 children age 7–12 years and 768 adolescents age 13–19 years with a diagnosis of ADHD, plus the same number of control persons. For costing, resource use was valued applying SHI acquisition costs. Patient subgroups were defined by the (additional) presence of the most prevalent comorbidities, i.e., conduct and personality disorders, mood and affective disorders, specific development disorders, and adjustment disorder. **RESULTS:** Average costs per patient with ADHD were €622/€661 (children/adolescents) compared to €245/€250 for controls. ADHD with coexisting conditions caused the following direct medical expenditures: in the additional presence of conduct and personality disorder, €703/€769; mood and affective disorders, €714/€761; specific development disorders, €630/€766; adjustment disorder, €829/€963. Average costs for patients with these disorders but without ADHD were also increased, and will be reported in detail. **CONCLUSIONS:** The present data are limited since they do neither include costs of inpatient treatment nor cost of ergotherapeutic interventions, which will have to be addressed in future studies. They provide nevertheless, for the first time, insight into the impact of coexisting conditions on the financial burden for the SHI associated with a diagnosis of ADHD.

PODIUM SESSION I: QUALITY OF LIFE/PREFERENCE-BASED MEASURES I: ISSUES WITH INSTRUMENTS

QL1

AGGREGATION OF DATA FROM MULTIPLE LANGUAGES AND CULTURES: REPORT FROM THE ISPOR TASK FORCE ON TRANSLATION AND LINGUISTIC VALIDATION

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OBJECTIVE: The increasing inclusion of Patient Reported Outcome (PRO) measures in large multi-country trials has introduced many new methodological challenges. PROs are often developed in English and translated into the various languages needed to support these global trials. Data is often pooled and there are concerns about the process, but currently no established criteria, to assure the appropriateness of the aggregation of data derived from multiple languages and cultures. **METHODS:** A literature review was conducted in order to investigate what methods have been used to assess measurement equivalence across translated PROs. Discussions were held between members of the task force and comments were sought from the ISPOR membership. **RESULTS:** A diverse range of methods have been employed to assess measurement equivalence across translated PROs. These include: classical test theory, factor analysis, structural equation modelling (SEM), and Differential Item Functioning (DIF). Basic measurement characteristics such as means, standard deviations etc have been evaluated when the samples are large enough, or basic measurement properties (distribution, internal consistency etc) have been verified in a at least a few languages. If measurement equivalence is lacking it is suggested that qualitative research, analysis of existing trial datasets, and/or consultation with in-country health professionals could be carried out to investigate possible reasons for the lack of equivalence. **CONCLUSION:** While data pooling across languages/cultures is common practice, there is no clear recommendation about methods or the level of measurement equivalence required to determine whether pooling is appropriate or not. There is a need for practical steps to be taken in order to investigate and resolve lack of measurement equivalence and a great need for further research in this area.

QL2

TRANSLATION OF THE COLUMBIA SUICIDE SEVERITY RATING SCALE (C-SSRS) FOR USE IN 33 COUNTRIES

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OBJECTIVES: To help clinicians determine the presence of suicidality, the C-SSRS was developed in US English and contains suggested probes to assess suicidal ideation and behaviour, their severity, and lethality of suicidal attempts. Prior to use in an international study to investigate suicidality, the clinician rated C-SSRS had to be translated into 45 languages for 33 countries. A rigorous methodology was required to ensure conceptual equivalence and cultural relevance across languages. **METHODS:** The process was conducted by specialists in each target country, following a standardized methodology: 1) two forward translations by native target language speakers; 2) comparison and reconciliation of the translations; 3) back translation by a native

English speaker; 4) comparison of original and back translation; and 5) review by a clinician. **RESULTS:** Cultural and linguistic challenges emerged during the process. On the cultural level, the differences in the approach to suicide and its methods based on differences in tradition and availability of means required finding suitable alternatives in the target languages. On the linguistic level, it was important to differentiate between medical and psychiatric hospitalisation after a suicide attempt and appropriate solutions across languages had to be found. The process revealed an area of ambiguity in the original rating instructions which had to be clarified in the translations. Examples of these and other challenges and their solutions will be discussed in the presentation. **CONCLUSIONS:** The 45 language versions, of the C-SSRS (a total of over 90 translations now exist), were established according to a rigorous methodology to ensure conceptual equivalence and cultural relevance across languages. The translations may now be used in international studies to assess suicidal ideation and behaviour and facilitate the comparison and pooling of data. The analysis of the psychometric results will be necessary to see if and how suicidal ideation and behaviour compare across countries and cultures.

QL3

ACCESS TO HEALTH-RELATED QUALITY OF LIFE (HRQL) INSTRUMENTS AND THEIR TRANSLATIONS IN THE LIGHT OF EMEA RECOMMENDATIONS

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INTRODUCTION: The EMEA reflection paper on HRQL specifies that the claim in the Summary of Product Characteristics (SmPC) with respect to HRQL will always be considered depending on the strength of the evidence, which should be based on 6 criteria, amongst these are the justification of the choice of the HRQL instrument(s), and the evidence of validation (including for translation). To meet these requirements, users should have access to reliable and updated information. To determine if these can be met, it is necessary to review how users access information about HRQL instruments. **OBJECTIVES:** 1) To investigate how developers organize the release of information about their instrument; 2) to comment on the pros and cons for each identified dissemination strategy; 3) To make recommendations for instrument developers to facilitate users' access to information. **METHODS:** we conducted a review of the 2,850 information requests addressed to our Information Resources Centre in 2007. The requests were categorized according to the type of information needed: 1) information about the original instrument; 2) conditions of access/use of instruments/translations; 3) validity of instruments/translations; 4) translation certification; 5) intellectual property. To address these, we made 900 contacts with developers, translators, publishers and other licensing authorities. **RESULTS:** Out of the dissemination strategies identified and reviewed, five trends emerged between two extremes: 1) uncontrolled, de-centralized, free access to non-updated information without developer's input; 2) controlled, copyright-protected, centralized, fee-paying access to reliable and updated information with developer's input. Advantages and disadvantages of strategies will be discussed. Examples demonstrate that the controlled strategy is more compliant with the EMEA evidence requirements. **CONCLUSION:** Findings indicate that how a user can comply or not with the EMEA requirements is directly related to how developers organize the release of information about their questionnaire and translations. Promoting a controlled, centralized system with developers' input may facilitate access to reliable and updated information.

QL4

PREDICTING EQ-5D, SF-6D AND 15D UTILITIES FROM EORTC QLQ-C30 DATA

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OBJECTIVES: To determine if the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) can satisfactorily predict EQ-5D, SF-6D and 15D utilities. The QLQ-C30 measures health-related quality of life (HRQOL) using a global scale, five functional scales and eight symptom scales/items and like most HRQOL instruments provides a profile of scores instead of an overall preference-based index, precluding its use in cost-utility studies. **METHODS:** A stratified sample (N = 48) of gastrointestinal cancer patients on chemotherapy was interviewed. The survey contained the QLQ-C30, the SF-36, two multi-attribute utility instruments (EQ-5D and 15D) and socio-demographic and disease-related questions. Validity of QLQ-C30 scales was assessed by testing a priori hypotheses that they would be moderately or strongly correlated with SF-36 scales measuring similar HRQOL dimensions and that younger subjects and those not reporting comorbid conditions would have better scores. Linear regression analyses identified the extent to which QLQ-C30 scales could predict EQ-5D, SF-6D and 15D utilities. **RESULTS:** Pearson's correlations between similar QLQ-C30 and SF-36 scales ranged from 0.69 to 0.89 ($P < 0.001$). Subjects with coronary heart disease had worse scores on all QLQ-C30 functional scales (T-test, $P < 0.05$ for four scales), as did older subjects as well (ANOVA, $P < 0.05$ for five scales). QLQ-C30 global, functional and symptom scales were significant predictors of utility scores elicited from standard instruments. Specifically, three scales were significant ($P < 0.05$) predictors of EQ-5D utilities, six scales ($P < 0.05$) of SF-6D utilities and four scales ($P < 0.001$) of 15D utilities and explained large portions of variance (adjusted R^2 was 0.610, 0.833 and 0.912 respectively). Robustness of results was tested and confirmed in patient subgroups with differing HRQOL. **CONCLUSIONS:** Preliminary evidence has been provided supporting the appropriateness mainly of the 15D and SF-6D instruments in cancer-specific cost-utility studies, although further studies involving larger and more diverse patient samples are encouraged.

PODIUM SESSION II: CARDIOVASCULAR DISEASE EVALUATIONS

CV1

WHAT IS THE CLINICAL BENEFIT OF PREVENTING NON-FATAL MYOCARDIAL INFARCTIONS?

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OBJECTIVES: Therapies may reduce short-term rates of non-fatal myocardial infarction (MI) while having no detectable effect on in-trial mortality. We sought to estimate the clinical benefit of preventing a non-fatal MI in terms of its effects upon long-term rates of death and MI. **METHODS:** We analyzed 14,890 patients with significant coronary artery disease (CAD) undergoing diagnostic catheterization (cath) at Duke Medical Center between 1999 and 2006, with follow-up through June 2007. Patients were classified as having a non-fatal MI within three months of