that of physicians’ preferences for middle-aged patients across most benefit levels. Compared to adult patients, parents have greater risk tolerance for treating severe CD symptoms, and smaller risk tolerance for treating moderate CD symptoms. CONCLUSION: Respondents indicated they are willing to accept defined mortality risks in exchange for clinical efficacy and that acceptance is affected by the degree of benefit, the patient’s characteristics and the nature of the SAE. Understanding risk-benefit preferences can assist in identifying appropriate treatments and in informing welfare-enhancing regulatory decisions.

PR4

BACK PAIN IN GERMANY: ARE THERE DIFFERENCES CONCERNING HEALTH-RELATED QUALITY OF LIFE (HRQOL) IN PATIENTS TREATED ACCORDING TO GUIDELINES, GUIDELINE INDEPENDENT AND PATIENT SELF-TREATMENT?

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OBJECTIVES: Back pain has a considerable impact on HRQoL, even with new medications, treatments and guidelines the degree of suffering for patients is high. The objective was to compare HRQoL for patients with back pain in Germany for three different treatment groups (guideline-, non-guideline- and self-treatment-group). METHODS: Patients were consecutively recruited by physicians in general practice (n = 54) in 2005. Patients were categorized into the three groups according to pre-specified algorithms. All groups completed the generic SF-36, and the disease specific FFbH, von Korff Index and PHQ-D questionnaires. In addition, a retrospective chart review was conducted. HRQoL data was compared between the groups.

RESULTS: A total of 145 patients took part in this study (n = 29 guideline-group, 44 non-guideline-group, 72 with self-treatment). Patients in the self-treatment-group were younger than patients in guideline- or non-guideline-group (49.8 vs. 59.4 vs 57.4 years, p = 0.0021). The groups did not differ significantly in gender or other socio-demographic characteristics. The von Korff Index was lowest (i.e. poorer) in the self-treatment-group and highest in the guideline-group (p = 0.0077). Regarding SF-36, patients in the guideline-group had the lowest physical (30.2 ± 8.5) and mental (41.2 ± 13.5) component scores, only the differences regarding physical component were statistically significant between the groups (p < 0.0001), those regarding mental component were not (p = 0.2875). Regarding PHQ-D items, the groups did not differ in frequency of major depressive and other depressive symptoms. The guideline-group had significantly higher burden of somatoform symptoms compared to the other two groups (p = 0.0219). The self-treatment-group had the highest FFbH-R total score (67.7 ± 21.5) compared to other two groups (p = 0.0056).

CONCLUSION: From the here collected data, it seems that patients who are treated according to guidelines have reached a higher degree of suffering (poorer HRQoL) compared to those patients with either treated without guidelines and/or treat themselves. Further research is warranted to confirm our findings.

PODIUM SESSION II: CANCER

CN1

USING THE FACT-NEUROTOXICITY TO EVALUATE QUALITY OF LIFE IN CANCER PATIENTS FROM ACROSS THE GLOBE

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OBJECTIVES: Translation of PRO measures is an essential component of research methodology in preparation for multinational clinical trials. The FACT-Neurotoxicity (FACT-Ntx) is used to evaluate the quality of life of cancer patients suffering from neurotoxicity, a side effect of certain treatments. This study set out to linguistically validate the FACT-Ntx for use in Denmark, India, Lithuania and South Africa. METHODS: The study sample consisted of 176 patients (96 males and 80 females), with varying cancer diagnoses and a mean age of 51 years, speaking 11 languages: Afrikaans (15), Danish (25), Gujarati (15), Hindi (15), Kannada (15), Lithuanian (15), Malayalam (15), Marathi (15), Punjabi (15), Tamil (15) and Telugu (16). The FACT-Ntx was translated according to standard FACIT methodology. Patients diagnosed with any stage cancer on any treatment and experiencing neurotoxicity completed the respective translated version and then participated in cognitive debriefing interviews. Statistical analyses (descriptive statistics, one-way ANOVA and reliability analyses) were performed on the quantitative data. Participant comments were analyzed qualitatively. RESULTS: The FACT-Ntx translations showed good reliability and linguistic validity. The internal consistency of all languages combined was 0.86, and all items correlated at an acceptable level. In general, the Ntx score differed across self-reported Performance Status Rating (PSR) groups (nonparametric Kruskal-Wallis test p < 0.0001). A nonparametric Generalized Linear Model (GLM) approach (with multiple comparison adjusted significance level 0.017) showed a difference between ‘PSR = 0’ and ‘PSR = 1’ (p = 0.0002) and a difference between ‘PSR = 0’ and ‘PSR = 2’ (p < 0.0001), both with ‘PSR = 0’ patients reporting less neurotoxicity. CONCLUSION: The FACT-Ntx has shown acceptable reliability and linguistic validity in 11 languages. The instrument also has shown adequate sensitivity in differentiating patients with no symptoms and normal activity from patients reporting some symptoms. We consider these translations acceptable for use in international research and clinical trials.

CN2

DEVELOPMENT AND VALIDATION OF OPTIMALLY WEIGHTED MEASURES OF GLOBAL HEALTH-RELATED QUALITY OF LIFE (QOL) AND UTILITY BASED ON A CANCER-SPECIFIC QOL INSTRUMENT

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OBJECTIVES: To facilitate the comparison of net benefits of cancer treatments in clinical trials by developing and validating a system to convert data from a QoL instrument into precise and optimally weighted global QoL measures and utilities.

METHODS: Two-hundred cancer patients completed the Utility-Based Questionnaire-Cancer (UBQ-C), a validated 34-item cancer-specific instrument which includes scales of health status, overall QoL, disabilities and distresses. Patients were interviewed to elicit time trade-off (TTO) utilities for their own health states. A global QoL measure was derived from a weighted combination of the UBQ-C scales based on linear regression of health status on the individual scales. An equation to convert global QoL into utility was derived. Validity was examined using baseline data from a RCT of advanced breast cancer chemotherapy (n = 290).

RESULTS: The weighted global QoL measure was more precise than the single-item QoL scales. Median scores (IQR) were much lower for the weighted global QoL measure: 0.77 (0.65, 0.85) than for the direct TTO utility: 0.98 (0.85, 1.0). The best model to predict utility from weighted global QoL was a power transformation: TTO = 1-(1-global QoL)^2. The measures discriminated between RCT subjects with good and poor performance status: mean (95% CI) derived utility scores for ECOG 0-1 = 0.91 (0.89, 0.92), ECOG 2-3 = 0.75 (0.68, 0.81),
p < 0.0001. Subjects with lower scores had worse survival: HR 1.6 (95% CI 1.2, 2.0), p < 0.0002. CONCLUSION: QoL measures underestimate utilities. The weighted global QoL and utility scores had discriminative and predictive validity in advanced cancer. Our work enables QoL data obtained with a simple questionnaire to be converted into optimally weighted measures that can be used in clinical trials to: describe the net effect of cancer treatments on QoL; evaluate trade-offs between quality and quantity of life using quality-adjusted survival analysis; and do cost-effectiveness analyses based on cancer patients’ preferences.

**EFFECTIVENESS OF EPOETIN ALPHA VERSUS DARBEPOETIN IN CHEMOTHERAPY-INDUCED ANAEMIA IN THE GERMAN SETTING**

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OBJECTIVES: To analyze the effectiveness of Darbepoetin alpha and Epoetin alpha administered in patients with chemotherapy-induced anaemia (CIA) in the German setting considering the dosing schedules recommended in Germany. METHODS: Published prospective, randomized and controlled studies with either Epoetin alpha administered once weekly (EPO-QW), Darbepoetin administered QW (DARB-QW) and once every three weeks (DARB-Q3W) were extracted. Mean haemoglobin area-under-the-change-curve (HB-AUC) was selected as the effectiveness parameter, calculated by inclusion of all available haemoglobin values in the chosen time frame of 12 weeks. Mean administered doses and transfusion requirements were analysed. Number of study patients were accounted for. RESULTS: Eleven study arms were identified satisfying the inclusion criteria. Mean baseline HB for EPO-QW, DARB-QW and DARB-Q3W varied between 9.5–10.4 g/dl, 9.4–9.9 g/dl, and 9.8–9.9 g/dl respectively. The increase in HB levels from baseline to week 12 varied between about 1.0 g/dl–2.9 g/dl, 1.1 g/dl–1.6 g/dl, and about 1.0 g/dl. Calculated mean HB-AUC value for EPO-QW, DARB-QW and DARB-Q3W were 11.75, 8.84 and 8.08, respectively. Mean administered doses reported were 39,949 IU / week and 42,714 IU / week for EPO-QW, 2.2 µg/kg weekly, 1.59 µg/kg weekly, 2.05 µg/kg weekly for DARB-QW and 1.87 µg/kg weekly mean dose per kg for DARB-Q3W. Information on transfusion rates differed, for two study-arms transfusion requirements were not reported at all. CONCLUSION: Comparative studies are not available for the recommended and labeled regimens in Germany. Quality and amount of reported data needed for comparing clinical effectiveness from different study arms differ very much. Administered doses, transfusion rates and detailed HB increase were not available for all studies. Considering HB-AUC as the key comparison criterium Epoetin alpha administered once weekly is more effective.

**COST-EFFECTIVENESS OF PEGYLATED LIPOSOMAL DOXORUBICIN VS. CONVENTIONAL DOXORUBICIN IN AVOIDANCE OF CARDIOTOXICITY FOR METASTATIC BREAST CANCER IN THE FIRST TREATMENT YEAR**

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OBJECTIVES: Despite demonstrated efficacy of anthracyclines in metastatic breast cancer (MBC), strong evidence links these agents to development of reduced left ventricular ejection fraction (LVEF) and congestive heart failure (CHF). We examined the cost-effectiveness of using pegylated liposomal doxorubicin (PLD) to reduce cardiotoxicity. METHODS: A Markov model was developed to simulate the use of PLD vs. conventional doxorubicin (DOX) in the first 48 weeks after initiation of therapy. Our reference case was a 58 year old female newly diagnosed with MBC. Data from a large-scale clinical trial was used to model the incidence of CHF. The perspective was the provincial authority in Ontario, Canada. Costs included direct costs of chemotherapy, oncology and hospital services for managing MBC, as well as medical management for treating cardiotoxicity. Since trial data showed that patients with prior anthracycline exposure (15%) had a relative risk of 2.8 for LVEF, and 4.1 for progression to CHF, we adjusted for prior anthracycline exposure which is greater in the adjuvant setting (80% in Ontario). A previously developed cardiotoxicity risk model was used to identify high-risk patients. Analyses were performed for: 1) all patients, 2) subset of high-risk patients. RESULTS: For DOX, 40% experienced cardiotoxicity, with 18% developing CHF. These rates were 54% and 33% in high-risk patients. For PLD, no patients developed CHF, but 9% overall and 14% of high-risk patients developed LVEF. Using PLD instead of DOX was associated with an incremental cost of CAD$75,513 per patient spared CHF, $49,952 in high-risk patients. CONCLUSION: In the first treatment year, the greatest cost-effectiveness gain was avoidance of CHF in high-risk patients. In Ontario, where the vast majority of patients are high-risk, a large percentage of patients would be expected to avoid CHF by using pegylated liposomal doxorubicin instead of conventional doxorubicin.

**PODIUM SESSION II: ECONOMIC STUDIES I**

**INCREMENTAL DIFFERENCES IN RESOURCE UTILIZATION AND COSTS OF TREATING PERSONS INFECTED WITH HIV IN A LOW SOCIOECONOMIC NEIGHBORHOOD**

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OBJECTIVES: To measure the mean incremental differences in health services utilization and costs for individuals infected with HIV compared with individuals not infected with HIV who reside in the Downtown Eastside (DTES) of Vancouver, Canada. METHODS: We utilized data from the Commmunity Health And Safety Evaluation (CHASE) Project, a prospective cohort study undertaken to measure health care utilization. A representative sample of residents living in the DTES were recruited beginning February 2003 and followed until March 31, 2004. Self-reported information was collected at baseline and included sections on sociodemographics, education, employment, housing, and illicit drug use. This information was linked to administrative health records on HIV-status, hospitalizations, outpatient consultations, and dispensed medications. Health expenditures included costs of hospitalizations (estimated using length of stay and the mean per-diem), outpatient visits and medications and were analyzed using random effects linear regression models and reported in 2004 CDN. RESULTS: The analysis consisted of 2,905 individuals who were successfully linked with at least one of the linked databases. There were 459 (15.8%) HIV-positive and 2456 HIV-negative participants. All utilization and cost estimates were significantly higher for individuals infected with HIV, both crudely and after adjustment. Individuals infected with HIV had