PCN107  MEASURING RISK FACTORS FOR NON-ADHERENCE USING PATIENT-REPORTED OUTCOMES IN STUDIES EVALUATING ADHERENCE WITH ORAL ANTIENTEPLASIS AGENTS: A 10-YEAR REVIEW

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OBJECTIVES: With oral antienteplasism agents (OAs) becoming the mainstream of treatment for several cancer types, understanding risk factors for medication non-adherence is becoming increasingly important in oncology. Patient-reported outcome (PRO) instruments may provide valuable insight on barriers to medication adherence in the real world. This study sought to identify and describe key patient-reported risk factors for non-adherence measured in observational studies evaluating adherence with OAs. METHODS: A targeted literature review was conducted to identify OAA adherence studies utilizing PROs and published between January 2004 and January 2014. Key data extracted from each included study design, cancer type, and all PRO instruments or study-specific questions used. Domains measured by each PRO instrument and questionnaire were recorded to understand patient-reported risk factors measured. RESULTS: Of 100 articles reviewed, 11 studies met all study inclusion/exclusion criteria. Nine studies (82%) used at least one validated PRO instrument and 7 studies (64%) used at least one study-specific questionnaire to measure patient-reported risk factors for non-adherence. The most commonly used PRO instruments were the Beliefs About Medicines Questionnaire (BMQ; n=6) and the Satisfaction with Information about Medicines Scale (SIMS; n=3). Six studies (55%) used a validated PRO to measure health-related quality of life (HRQoL), however, only the European Organization for Research and Treatment of Cancer Quality of Life Group (EORTC QLQ-C30) was used in more than one study. Overall, the most common domains measured by PRO instruments or questionnaires were knowledge about medication (n=7), beliefs about medication efficacy/necessity (n=5), adherence (n=4), patient side effects (n=3), and adverse events (n=3). CONCLUSIONS: Risk factors for non-adherence are commonly measured by patient-report in observational studies evaluating adherence with OAs. Further work is needed to clarify advantages and disadvantages of using specific PROs to measure relevant risk factors and determine if risk factors vary by cancer type.

PCN108  MEASUREMENT OF HEALTH STATE UTILITIES FOR RELAPSED OR REFRACTORY PERIPHERAL T-CELL LYMPHOMA BY USING TIME-TRADE-OFF AND VISUAL ANALOG SCALING MAPPING METHOD

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OBJECTIVES: To elicite health utilities for refractory or relapsed peripheral T-cell lymphoma (PTCL) using visual analog scaling (VAS) and time trade-off (TTO) methods, to examine the impact of age on TTO values, and to estimate power curves to convert VAS scores to TTO values. METHODS: Health state vignettes for four health states (complete remission, partial response, stable disease and progressive disease) and four treatment-related adverse events (neutropenia, thrombocytopenia, anemia, and neurotoxicity) were developed. Utility elicitation from 125 Koreans from the general public living in Seoul was conducted using VAS and TTO methods. Linear mixed regression models with at least one linear mixed models were used to assess the impact of age on TTO values. Nonlinear regression was used to estimate power curves to convert VAS scores to TTO values. RESULTS: Complete remission was the most preferred health state (mean TTO utility value: 0.880), followed by partial response, 0.784, stable disease, 0.746, and progressive disease, 0.567. Treatment related adverse events were related to significant negative impacts. The smallest disutility was associated with drug neutropenia (mean TTO disutility: -0.107). Age was not a significant determinant about medication (n=3). PR and PD were significantly different between males and females (p=0.0135 and p=0.047, respectively). The treatment responses and AE were significant factors in reduced utility values. The ratios of expected utility to disutility (-1 utility) in FR and PD were 0.47, 0.38, and 0.13 times lower than those of CR, respectively. The ratios in AE(neutropenia, mucositis, thrombocytopenia, and anemia) were 0.45, 0.51, 0.46, and 0.51 times lower than those of CR, respectively. CONCLUSIONS: This study is the first that significantly influences non-adherent/ refractory non-Hodgkin lymphoma. It is important to provide an appropriate treatment to improve quality of life.

PCN110  MAPPING UTILITY SCORES FROM EUROPEAN ORGANIZATION FOR TREATMENT OF CANCER CORE-30 QUESTIONNAIRE SCORES (EORTC QLQ-C30) IN RELAPSED MULTIPLE MYELOMA

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OBJECTIVES: To map patient-reported EORTC QLQ-C30 scores from the ASPIRE trial to EQ-5D utility index scores after identifying mapping algorithms from published literature. ASPRIRIE is a randomized, open-label, phase 3 trial, which evaluated the efficacy and safety of pomalidomide and weekly dexamethasone compared with lenalidomide and weekly dexamethasone in patients with relapsed multiple myeloma. METHODS: We searched Medline, Embase, NHSEED, CENTRAL, DARE (January 2008 through September 2014) and conference proceedings (2010 to 2014) with the terms, EORTC, QLQ-C30, map, mapping, cross walk, translate, translation, algorithm, or mapping algorithm. Six articles reported mapping algorithms in a cancer population; relevant detailed information was available in four publications and extracted. Algorithms were implemented with ASPIRE data using regression modeling techniques including ordinary least squares (OLS) at domain and item levels, response mapping, and 2-part OLS item at model level where separate regressions were applied for low and high average functional value domain scores. Utility scores at baseline in the ASPIRE trial population were estimated with UK tariffs from six algorithms. RESULTS: Mean utility at baseline varied by algorithm and ranged from (0.51 to 0.64) for low and 0.3-0.57 (Vrentzidakis et al 2014) (0.42) for OLS model (Proskorovsky et al 2014, full OLS Model). The range of scores (i.e. min, max) produced from the algorithms varied considerably, as narrow as 0.06 to 1.05 (Proskorovsky 2014, full OLS model), and as broad as <0.43 to 0.98 (Longworth 2014; OLS model). CONCLUSIONS: The methods algorithms yielded a wide range of estimates to determine the selection of the better fitting model will involve congruence between modeled estimates and the range of utility values estimated for the UK general population (-0.594 to 1.00), utility scores reported elsewhere from similar subjects and clinical judgment with respect to patient characteristics in the ASPIRE trial.

PCN111  EVALUATION OF CONCORDANCE BETWEEN PATIENT REPORTED OUTCOMES (PROS) AND CLINICIAN REPORTED OUTCOMES (CROS) IN PATIENTS WITH METASTATIC BRAIN DISEASE

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OBJECTIVES: To explore the degree of agreement between PRO, time-trade-off (TTO) utility and CROS in metastatic brain disease patients: neurocognitive function (NCF), Karnofsky performance status (KPS) and quality of life utility. METHODS: We retrospectively analyzed secondary data from 96 brain disease patients (57 randomized and 49 non-randomized) who completed tests at baseline and three time horizons (1, 5, and 10 years), NCF, KPS, quality of life (Functional Assessment of Cancer Therapy–Brain [FACT-BR]) and symptoms (MD Anderson Symptom Inventory–Brain Tumor [MDASI-BT]). Multiple linear regression analyses were used to explore the relationship between TTO utility and CROS. RESULTS: The CROS significantly associated with TTO utility were the FACT-BR (p-value<0.01 for all horizon, and the MDASI-BT (slopes) CROS (p-value = 0.045 and 0.034 for 5- and 5-year TTO utility respectively). However the associations found were not strong. The NCF and KPS scores were not significantly associated with TTO utility. CONCLUSIONS: None of the functional scores used in metastatic brain disease explain patients’ decisions to trade time for better quality of life. Quality of life scores are significant predictors of TTO utility, but they have only a limited impact on patients’ decisions. Therefore it is essential to use PROs and incorporate patients’ perspectives of their symptoms and care and to complement the traditional CROSs.

PCN112  USING FACT DATA TO PREDICT PREFERENCE-BASED UTILITY MEASURES FOR PEOPLE WITH MALIGNANT MELANOMA: A REVIEW OF THE EVIDENCE

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OBJECTIVES: To identify a published statistical relationship suitable for predicting UK specific preference-based utility scores (EQ-5D, SF6D or HUI) from FACT data (FACT-BRM, FACT-G or FACT-M) in individuals with malignant melanoma. METHODS: A range of health and social science databases were searched using a keyword strategy with terms relating to the population (people with malignant melanoma) and both the relevant FACT instruments (FACT-BRM, FACT-G, FACT-M, FACT-B, FACT-P). RESULTS: There were no generic preference-based instruments (e.g. EQ-5D, SF-6D, HUI2). In addition to the keyword searches, speculative searches using internet search engines and citation searching and reference list checking were undertaken with no restriction by date, language or study design. Any study which provided a statistical relationship model described the relationship between one (or more) of the stated FACT and preference-based measures in patients with malignant melanoma were included in the review. Identified studies were appraised using a checklist for the reporting standards of statistical regression models. RESULTS: A total of 19 studies were identified from the literature searches, increasing to 27