PCN107  MEASURING RISK FACTORS FOR NON-ADHERENCE USING PATIENT-REPORTED OUTCOMES IN STUDIES EVALUATING ADHERENCE WITH ORAL ANTIINEPLASTIC AGENTS: A 10-YEAR REVIEW
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OBJECTIVES: With oral antineoplastic agents (OAAs) 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 OAAs.

METHODS: A targeted literature review was conducted to identify OAA adherence studies utilizing PROs and published between January 2005 and December 2014. Key data points extracted from each study included study design, cancer type, and all PRO instruments or study-specific questionnaires 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=4) 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 (HRQL); however, only the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (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 outcomes of treatment (n=6), attitudes toward condition (n=5), symptoms (n=3) and side effects (n=3). CONCLUSIONS: Risk factors for non-adherence are commonly measured by patient-report in observational studies evaluating adherence with OAAs. 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 ANALOGUAL SCALING METHODS
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OBJECTIVES: To elicit health utilities for relapsed or refractory 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 (mucositis, thrombocytopenia, anemia, neutropenia) 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 a 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 with mean TTO utility value of 0.886, 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 mucositis (mean difference in utility -0.009). The largest disutility was related to neutropenia (-0.107). Age was a significant determinant of utility values. Health state (p-value < 0.001) and cancer experience (p-value < 0.025) had a significant impact on preferences. Two power functions (w, where u = aggregated TTO values and v = aggregated VAS scores; C0, C1, w): This study demonstrated that utility values and power curves for PTCL can be used in economic evaluations and decision making.

PCN109  UTILITIES FOR HEALTH STATES IN PATIENTS WITH RELAPSED/REFRACTORY NON-HODGKIN LYMPHOMA AND FACTORS INFLUENCING UTILITY VALUES
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OBJECTIVES: To elicit utility values for health states associated with relapsed/refractory non-Hodgkin lymphoma and compare utilities after adjusting for demographic and sociobehavioral characteristics in South Korea's general public. METHODS: Health state ‘vignettes’ associated with a treatment for R/R non-Hodgkin lymphoma were developed and characterized as: complete response (CR), partial response (PR), stable disease (SD), progressive disease (PD), and treatment related adverse events (neutropenia, mucositis, thrombocytopenia, anemia, AE). Vignettes were valued by South Koreans using the time trade-off method. The health state vignettes combined information provided by experts in PTCL and consultation with clinical specialists, and interviews with patients, which were used to develop health state dimensions consistent with the EQ-SD. Utility values were summarized and compared with normative (global) values. RESULTS: Utility values were estimated using mixed beta regressions. Since the utility values for various health states were measured by a subject, subjects were used as a strata. The glimm SAS procedure was used to determine factors influencing utility. RESULTS: A total of 400 Korean adults were interviewed. The gender ratio was 1:1 with a near even gender split. Mean utilities were CR: 0.89(±0.08), PR: 0.79(±0.13), SD: 0.75(±0.12), PD: 0.45(±0.16), AE-neutropenia: 0.70(±0.17), AE-mucositis: 0.79(±0.14), PD-thrombocytopenia: 0.77(±0.14), and AE-anemia: 0.79(±0.13). Utility values for FR 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 reducing 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 has implications for future studies to be performed on relapsed/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-SD utility index scores after identifying mapping algorithms from published literature. ASPIRE is a randomized, open-label, phase 3 trial, which evaluated the efficacy of elotuzumab with pomalidomide and 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 of 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 model at item level where separate regressions were fitted for low and high average functional items in 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 0.66 (Vessey et al 2014 OLS model) to 0.60 (NCS in life, 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 magnitude average estimates and the determination 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.