both administered every 21 days. Clinic visits were estimated from grade four toxicities not requiring hospitalisation. Using the perspective of the national health care system, Spanish costs were applied to EU data from patients who received treatment (N = 541). Unit costs were obtained from published sources. Mean cost per patient was calculated. RESULTS: Baseline characteristics were well-balanced (72% male, 88% performance status 0/1, 75% Stage IV). Patients received a median of four cycles in both treatment arms. Survival was similar between arms (HR = 0.99), with a median of about eight months. Grade 3/4 neutropenia and neutropenic fever occurred more frequently with docetaxel (40% vs. 5%, 13% vs. 2%, respectively; p < 0.001). Most other grade 3/4 toxicities occurred at low rates (≤5%) and were similar between arms. Patients receiving docetaxel were hospitalised more frequently and received more granulocyte colony-stimulating factors, erythropoietin, antibiotics and antifungals. Patients receiving docetaxel were more likely to incur extra clinic visits to manage grade four toxicity. Patients treated with pemetrexed received more transfusions. Total mean cost per patient was 309€ for pemetrexed and 1036€ for docetaxel. Hospitalisation and outpatient medications accounted for majority of costs (67% and 25% in the pemetrexed group, respectively, and 77% and 21% in the docetaxel group, respectively). CONCLUSIONS: Pemetrexed demonstrated similar efficacy to docetaxel in second-line treatment of NSCLC, but with a superior toxicity profile. The differences in toxicity are expected to translate to considerable cost savings to the Spanish health care system.

PCN31
EVALUATION OF PEMETREXED VERSUS DOCETAXEL IN THE SECOND-LINE TREATMENT OF ADVANCED NON-SMALL CELL LUNG CANCER: PATIENT PREFERENCE AND WILLINGNESS-TO-PAY WITH DISCRETE CHOICE CONJOINT ANALYSIS
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OBJECTIVES: Health-related quality of life assessments are increasingly used in clinical decision-making. A phase III trial of pemetrexed versus docetaxel in second-line therapy for advanced non-small cell lung cancer (NSCLC) showed similar efficacy; however, key safety benefits were reported with pemetrexed. Following a pilot study in the UK (UK), an expanded study in the UK and France was conducted to determine patient value associated with individual toxicity profiles. METHODS: A discrete choice conjoint analysis was used to quantify patient preference and willingness-to-pay for chemotherapy. A review of trial data, along with expert opinion, identified clinically meaningful toxicities that were statistically significantly different. Levels of risk of: febrile neutropenia (requiring hospitalisation) and nausea, neuropathy, arthralgia/myalgia, alopecia (all grades), were evaluated in the pilot. Following the pilot, arthralgia/myalgia was removed and a sample size of 70 pre-treated NSCLC patients per country was calculated. Patients considered unique, randomly generated sets of 10 pair-wise choice scenarios representing levels for toxicity attributes plus cost, designed to elicit trade-offs. Logistic regression analysis was applied to the stated scenario preferences against the individual attribute levels. RESULTS: In the expanded study, patients (N = 140) were predominantly male, mean age 61 years, and 60% Stage III, which is comparable to the pilot. Pemetrexed would be accepted in preference to docetaxel at zero cost, with a probability of 0.81 in the UK and 0.90 in France. The probability of choosing pemetrexed over docetaxel decreases with increasing cost; however, patient preference remains strong at 0.70 in the UK and 0.85 in France with a cost per cycle of £400 and 2500€, respectively. CONCLUSIONS: NSCLC patients showed clear preference for the enhanced toxicity profile with pemetrexed, which translates to valuable quality of life gains in the second-line setting. These data provide sensitive strength of preference measures. Additional country studies are planned.

PCN32
INSTRUMENTS TO MEASURE PATIENT-REPORTED OUTCOMES AND PERCEPTIONS OF CANCER-RELATED FATIGUE: A REVIEW OF THE LITERATURE
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OBJECTIVES: To identify and describe currently available instruments to measure patient-reported outcomes and perceptions of cancer-related fatigue. METHODS: A literature review was performed in several electronic sources including the U.S. National Cancer Institute website and the Medline database (1966–2004) using the keywords: fatigue, asthenia, questionnaire, scale, instrument, oncology, cancer, assessment, measure, measurement, expectation/s, relief, satisfaction, perception/s, worry/ies. Articles located were hand-searched for further relevant articles. A citation was selected for review when it referred to the use or development of patient reported instrument(s) to measure the impact of cancer-related fatigue or its treatment and/or patients expectations, beliefs and concerns regarding cancer-related fatigue. For each questionnaire located the following data was reviewed: instruments' name, target population, item number, dimensions, response scale and time frame. RESULTS: In total, 35 citations were selected and reviewed, which referred to 30 different instruments (27 patient-reported outcome questionnaires –PROs– and 3 epidemiological survey instruments) used to measure several aspects of cancer-related fatigue. Questionnaires ranged from a single item to 40 items, and the number of dimensions from 1 to 7. Almost all of the PRO's focused on aspects such as the intensity, frequency and duration of fatigue, though some also measured one or more of the following: quality of life, distress, psychological impact and impact on motivation/activity, and barriers to patient-physician communication. The survey instruments located were more likely to focus on patient's attitudes and beliefs regarding physician-patient interaction, psychosocial issues, accessing information, satisfaction with fatigue management and perceptions of causes, among others. CONCLUSIONS: Though there appears to be a surfeit of instruments to measure the intensity, frequency and duration of cancer-related fatigue, and some emphasis on the way fatigue affects quality of life there are few instruments which incorporate other aspects such as beliefs, expectations and attitudes which may also be useful in clinical practice.

PCN33
HEALTH UTILITY VALUES FOR CANCER RELATED ANAEMIA
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OBJECTIVES: To determine the preferences of the general public for health state descriptions of anaemia associated with cancer treatment. The majority of patients undergoing chemotherapy develop anaemia which leads to fatigue, and decreased quality of life (i.e. associated with a haemoglobin under 12 g/dl). Treating cancer related fatigue has not been given the importance of

Abstracts

679
other treatment-related effects such as nausea. The present study was designed to estimate the utility decrement associated with increasing severities of anaemia. METHODS: Existing trial data was summarized in order to define health states related to the following haemoglobin levels: 7.0–8.0; 8.0–9.0; 9.0–10.0; 10.0–10.5; 10.5–11.0; 11.0–12.0; and 12+ g/dL. These health states were based on the FACT-An fatigue related items and were reviewed by clinicians and two quality of life experts. Forty interviews with the general public (recruited through advertisements) were conducted where participants were asked to rate the health states using a visual analogue scale (VAS) and standard gamble (SG). RESULTS: Mean (+95% CI) utility values were calculated for each health state anchored against death. The VAS scores ranged from 19.3 ± 3.9 for 7–8 g/dL Hb to 53.8 ± 3.7 for 12+ g/dL Hb. The standard gamble derived utility values showed a broadly linear change from 0.59 ± 0.10 for 7–8 g/dL Hb to 0.75 ± 0.09 for 12+ g/dL Hb. CONCLUSIONS: The health state utility scores show a linear decrement in line with worsening anaemia. These data underline the importance of cancer-related fatigue for the general public.

PCN34

UTILITY ASSOCIATED WITH SEVERITY OF CANCER-RELATED ANAEMIA (CRA): A SOCIETAL VALUATION

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OBJECTIVES: Anaemia is a common complication in cancer patients undergoing chemotherapy. Although quality-of-life (QoL) in CRA has been studied, utility values related to anaemia severity are lacking. The UK National Institute for Clinical Excellence (NICE) requests cost-utility analysis based on quality-adjusted life-years (QALY’s) incorporating utilities elicited using public preferences. The objective was to use an appropriate method to estimate the impact of CRA, from a societal perspective. METHODS: A time-trade-off (TTO) questionnaire was designed and administered to a sample of laypeople: CRA health states were defined and described, based on the EuroQol (EQ-5D) instrument, and the Functional Assessment of Cancer Therapy—Anaemia (FACT-An) instrument, and validated by clinical experts and cancer patients who had experienced anaemia. These descriptions were valued using the TTO elicitation method. Written informed consent was obtained and trained interviewers conducted surveys during February–March, 2004. Results: In total, 110 respondents were interviewed; final analyses were performed on 106 respondents’ data. Resultant utility scores were converted to ratios, reflecting the baseline of “cancer and chemotherapy, with no anaemia”. Mean utility scores [SE] are 0.856 [0.014] for the no-anaemia state, and 0.781 [0.016], 0.615 [0.020] and 0.481 [0.020] for mild, moderate and severe anaemia states, respectively (Ratios of 1.00, 0.91, 0.72, and 0.36, respectively). CONCLUSIONS: This study strongly highlights a societal view that severity of cancer-related anaemia will significantly affect patient utility. For example, a change from no-anaemia to severe anaemia is predicted to approximately halve utility, independent of other factors. TTO appears to be a valid, and sufficiently sensitive method to highlight this effect. The ratios of relative effect are applicable to a range of “baseline” cancer utilities as multiplicative factors to estimate impact of anaemia within this broader context. These results could be incorporated within appraisals of therapies for CRA, and satisfy certain health technology assessment criteria.

PCN35

VALUATION OF SOCIETAL PREFERENCE BETWEEN THERAPIES FOR CANCER-RELATED ANAEMIA (CRA): RECOMBINANT HUMAN ERYTHROPOETIN (RH-EPO) VERSUS BLOOD TRANSFUSION

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OBJECTIVES: Blood transfusion and rh-EPO are alternative treatment options for CRA. Potential benefits of rh-EPO treatment include improved health outcomes, but also more convenient administration. The objective was to elicit public preference scores associated with differences in these aspects of treatment, and subsequently use these “valued preferences” within a willingness-to-pay (WTP) analysis of cost-effectiveness of NeoRecormon (rh-EPO beta) versus transfusion. METHODS: A discrete choice experiment (DCE) was designed and administered to a sample of laypeople. Important aspects of treatment were defined through a literature review, plus input from expert clinician and patient interviews. An out-of-pocket cost attribute was included in order to estimate WTP values. Lay people were surveyed during February–March, 2004. A random effects probit model was used to analyse the data. WTP values for aspects of treatment were obtained by estimating the marginal rate of substitution between treatment attributes and the cost coefficient. Mean values of a unit improvement in each attribute level were used in an economic welfare analysis of the value of shifting from transfusion to NeoRecormon. RESULTS: A total of 110 respondents completed the DCE questionnaire. Final analyses were performed on 1086 observations, and showed high consistency, reliability, and face-validity. The following preferences were significant predictors of choice (p < 0.001): Effectiveness: Higher level of relief from fatigue; Administration of treatment: Lower duration, subcutaneous/intravenous versus cannula injection, and GP versus hospital location; Safety: Lower risk of infection/allergic reaction; and Lower cost. Attribute levels were valued higher for NeoRecormon than for transfusion. This is reflected in an incremental welfare value of GBP368 [95% CI: GBP318–GBP419]. CONCLUSIONS: This study shows that the public value the favourable attributes of treatment with rh-EPO, and indicates a likely patient preference for treatment with NeoRecormon over blood transfusion. This type of WTP analysis could be used to aid decisions regarding optimal management of CRA.

CANCER

CANCER—Health Policy

PCN36

THE VALUE OF THE USE OF ANASTROZOLE AS AN ALTERNATIVE ADJUVANT THERAPY FOR EARLY BREAST CANCER (EBC) USING DISCRETE CHOICE WILLINGNESS-TO-PAY (WTP) METHODOLOGY

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OBJECTIVES: Anastrozole provides a treatment alternative for patients with EBC who cannot tolerate tamoxifen or in whom the drug is contraindicated. This study aimed to examine the value patients place on the ability of a treatment to decrease the