the general public, as it is possible there are differences in the valuation of states close to death.

PCN149
HEALTH STATE UTILITY VALUES IN BREAST CANCER: A REVIEW AND META-ANALYSIS

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OBJECTIVES: Health-related quality of life is an important issue in the treatment of breast cancer (BC) and health-state utility values (HSUVs) are essential for cost-utility analysis. The aim of the study was to identify published values for common health states for breast cancer and to determine pooled estimates of HSUVs for each identifiable health state. **METHODS:** A systematic review of HSUVs for conditions relating to BC was undertaken. Thirteen databases were searched in March 2009. HSUVs were allocated to six categories: screening related states, preventative states, adverse events in breast cancer and its treatment, non-specific breast cancer, early breast cancer (EBC) states and metastatic breast cancer (MBC) states. Where appropriate meta analysis was used to provide utilities based on combining all available evidence. Mean utility estimates were pooled using ordinary least squares with utilities clustered within study group and weighted by both number of respondents and inverse of the variance of each utility. Regressions included controls for disease state, utility assessment method and other features of study design. **RESULTS:** Forty-nine articles were identified, providing 476 unique utility values. From these, 117 values for MBC and 230 values for EBC were extracted and analysed by regression analysis. Utilities were found to vary significantly by valuation method (e.g. in EBC standard gamble had higher valuations than TTO and EQ-5D), and source of values. For MBC values significantly varied in expected direction by severity of condition, treatment and side-effects. **CONCLUSIONS:** Despite the numerous studies it was not feasible to generate a definitive list of HSUVs that could be used in future economic evaluations, due to the complexity of the health states involved and the variety of methods used to obtain values. Future research into quality of life in BC should make greater use of validated generic preference-based measures for which public preferences exist.

PCN150
WILLINGNESS TO PAY FOR A REDUCTION IN RISK OF TREATMENT SIDE EFFECTS IN PATIENTS WITH METASTATIC BREAST CANCER

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OBJECTIVES: The objective of this analysis was to assess patients' willingness to pay (WTP) for a reduction in risk of breast cancer treatment side effects. **METHODS:** A survey was developed using continent valuation processes to assess the WTP for a reduction in side effects. The survey asked female MBC patients to provide the amount they were willing to pay for a 25%, 50% and 100% reduction in risk of the following side effects: diarrhea/dehydration, hair loss, fatigue, nausea, neutropenia/febrile neutropenia, pain and tingling in hands and feet. Patients were also asked to select the side effect they would pay the most to avoid. Demographic information such as age, race/ethnicity, region, employment status, insurance type, and treatment regimen was also collected. **RESULTS:** A total of 202 metastatic breast cancer patients completed the survey. The majority of respondents were white, married, over the age of 51, and well educated. Most respondents had private insurance (67%) or Medicare (24%). Of those who reported paying out of pocket for their last treatment (58%), the average payment was $459. For a 25%, 50%, and 100% reduction in the risk of side effects, respondents were willing to pay an extra $1886, $3837 and $7794, respectively. Hair loss (28%), pain (17%) and nausea (15%) were selected most often as the side effect respondents would pay the most to avoid. **CONCLUSIONS:** Patients with MBC highly value reduction in treatment side effects and are WTP 4.2 times more for a treatment devoid of side effects over a treatment with a 25% reduction in the risk of side effects. Additional research is warranted to quantify WTP for specific side effects.

Cancer – Health Care Use & Policy Studies

PCN151
VALUE OF OUTCOMES RESEARCH TO INFORM REIMBURSMENT DECISION-MAKING ILLUSTRATED BY AN OBSERVATIONAL STUDY IN CHRONIC LYMPHOCYTIC LEUKEMIA

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OBJECTIVES: As outcomes research is being used to inform the decision-maker about continuation of reimbursement of expensive hospital drugs in the The Netherlands since 2006, this type of research is becoming more important. Our study started before 2006 and aimed to evaluate therapies in daily clinical practice and their costs and outcomes. This study gives an indication of the challenges that may arise from the design of outcomes research. **METHODS:** An observational follow-up study was performed including 160 patients with chronic lymphocytic leukemia (CLL). Data collection on treatment, costs and outcome was performed in 19 Dutch hospitals using medical records. **RESULTS:** Patients diagnosed between 1999 and 2003 were included and followed during 6.4 years on average. The mean age was 63 years (range: 30-86). 20% received one therapy-line, 12% two and 24% received three or more therapy-lines. Most patients received chlorambucil (87%) as first therapy and the second line was dominated by fludarabine (46%). However, therapies from the third line onwards varied extensively. Due to the development of new medicines like monoclonal antibodies, the treatment sequence changed in the more

recently diagnosed patients. As a consequence of the relatively low incidence of CLL and the variety in therapy, the number of patients with comparable therapies was small. **CONCLUSIONS:** Management of CLL varied strongly especially after the second therapy-line. This may be caused by the introduction of monoclonal antibodies as first and second line treatment during the study period. Additionally, a comparison of alternative therapies was hampered due to relative small number of patients. Consequently, modeling studies or patient registrations might be necessary to obtain valid information about cost-effectiveness of new expensive inpatient medicines in (chronic) diseases with a low incidence rate and a highly variable or changing management strategy.

PCN152
CAN BREAST CANCER RISK PREDICTION REDUCE THE RISKS OF FALSE NEGATIVE AND FALSE POSITIVE SCREENING MAMMOGRAMS?

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OBJECTIVES: Controversy continues about screening mammography, partially because of risks involved. Pre-test breast cancer risk prediction may improve positive and negative predictive value of screening mammography, particularly among women who have an abnormal screening mammogram. **METHODS:** We modeled one-year breast cancer risk in women with abnormal screening mammograms (BI-RADS3, BI-RADS4) by combining estimates of pre-test breast cancer risk based upon established risk factors, 12 validated SNPs and the average probability of cancer given BI-RADS category. We examined the degree to which the incorporation of pre-test breast cancer risk would reclassify women from current recommendations for short-term follow up of BI-RADS3 and biopsy of BI-RADS4 using biopsy thresholds of 1, 2 and 3% probability of breast cancer. **RESULTS:** Women with BI-RADS3 in the lowest 5% of pre-test breast cancer risk had a one-year average breast cancer risk of 0.24% compared to 2.7% for women in the highest 5% of pre-test risk. Women with BI-RADS4 in the lowest 5% of pre-test risk had a one-year average breast cancer risk of 4.9% compared to 39.8% for women in the highest 5% of pre-test risk. Incorporating BI-RADS 4 subclassifications increased the risk discrimination, women with BI-RADS 4A in the lowest 5% of pre-test probability had a one-year breast cancer risk of 1.4%. Using a biopsy risk threshold of 2%, 8% of women with a BI-RADS3 had a post-test risk above the threshold for biopsy and 7% of women with BI-RADS4A had a post-test risk below the threshold. **CONCLUSIONS:** Although incorporation of pre-test risk estimates changes decisions about management of abnormal mammograms for a relatively small proportion of women, the public health impact could be significant given the incidence of abnormal mammograms. Prospective studies are needed to determine effectiveness of breast cancer risk prediction in improving the positive and negative predictive value of mammography screening.

PCN153
COST OF HOSPITAL CARE IN POPULATION OF PATIENTS WITH NEOPLASMS IN POLAND

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OBJECTIVES: Although cancer morbidity is lower than cardiovascular or metabolic diseases, it is still the second leading cause of mortality and also the major economic problem due to high cost of treatment. According to estimations by the Karolinska Institutet and Stockholm School of Economics, the direct costs of caring for cancer patients are approximately 6.5% of total healthcare costs. The aim of this study was to estimate cost of hospital care in population of patients with neoplasms in 2009. **METHODS:** We used National Health Fund (NHF) statistics on Diagnosis-Related Groups (DRGs) attrition in 2009 year. Precise, in respect to ICD-10 diagnosis, NHF statistics cover 85% of all data. We identified data only for malignant neoplasms (C00-C97), in situ neoplasms (D00-D09) and neoplasms of uncertain or unknown behavior (D37-D48). Values are presented in Euro (exchange rate: 1 EUR=4.00 PLN). **RESULTS:** Cost of hospital care in population of patients with neoplasms was estimated to amount of 246.3 million EUR (289.7 million EUR when correction for 85% statistics cover will be applied). The highest costs of hospital care were related to malignant neoplasm of bronchus and lung (34.3 million EUR) followed by malignant neoplasm of bladder (26.5 million EUR), and malignant neoplasm of colon (22.8 million EUR). Given the number of cancer patients in Poland which is estimated to be 270 thousands, cost of hospital care per cancer patient per year would be approximately 1073 EUR. However apart from DRGs, cost of hospital care in population of patients with neoplasms includes also separately contracted chemotherapy (374.3 million EUR) and some Therapeutics Programs with a new drugs such as trastuzumab in breast cancer (46.1 million EUR) . **CONCLUSIONS:** Cost of hospital care in population of cancer patients is substantial and account for over 11.5% of all costs of hospital care in Poland in 2009.

PCN154
DISCUSSING THE INTRODUCTION OF NATIONAL SCREENING PROGRAMS IN GREECE: A DELPHI STUDY

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OBJECTIVES: In the absence of national screening programs (NSP) for adults in Greece, the aim of this study was to examine experts' views and recommendations on a predefined set of NSPs **METHODS:** A systematic review was conducted to identify those screening programs that best meet the criteria of clinical effectiveness and cost efficiency. The programs identified were set for evaluation in a multi-professional expert panel which completed a structured questionnaire in three rounds, using the Delphi method. Experts' agreement was investigated as well as