

their therapy. Our objective was to assess the cost-effectiveness of Sunitinib (SU) in the first-line treatment of mRCC patients in comparison with Bevacizumab (BEV) + IFN- and Sorafenib (SO) -at the level of 2011 year- based on the latest clinical evidence. **METHODS:** A Markov model (comprised of four states: 1st line treatment, 2nd line, Best Supportive Care and Death) was validated in several countries and was adapted for the Romanian jurisdiction. The model was set to 6 weekly cycles for a period of 10 years, which corresponds with a lifetime length scenario. Costs for medication and application were derived from hospital databases, expert panels and structured interviews. Experts that managed more than 60% of all local mRCC were consulted. These experts identified several scenarios related to outpatient and inpatient treatment decisions predominantly based on social reasons; all these scenarios have been tested. A WHO methodology was used to set a threshold of price per QALY (3 x local GDP) **RESULTS:** Cost per cycle in 1st line was lower than both 2nd line and BSC - consistent with other international findings. Neutropenia, proteinuria and heart failure have been identified as the most costly adverse events. The QALYs for SU was 1.86 compared to BEV 1.7 and SO 1.69. Incremental cost per QALY SU versus SO was 14.000 EURO and, respectively, -141.000 EURO versus BEV. **CONCLUSIONS:** Sunitinib is cost effective versus SO and dominant to BEV in the treatment of mRCC in the study settings. The model was very sensible to price of medication and cost of BSC.

PCN112

THE POTENTIAL COST-EFFECTIVENESS OF OBINUTUZUMAB (GA101) IN COMBINATION WITH CHLORAMBUCIL IN CHRONIC LYMPHOCYTIC LEUKEMIA

Walzer S¹, Becker U², Samanta K³, Wiesner C², Mueller E⁴
¹MArS Market Access & Pricing Strategy UC (h.b.), Weil am Rhein, Germany, ²F. Hoffmann-La Roche Ltd., Basel, Switzerland, ³Roche Products Limited, Welwyn Garden City, UK, ⁴Analytica LA-SER International Inc., Loerrach, Germany

OBJECTIVES: Obinutuzumab is the first, glycoengineered type II antibody demonstrating increased Antibody-Dependent Cell-Mediated Cytotoxicity (ADCC) and direct cell death compared with rituximab, and is pending regulatory approval (in combination with chlorambucil (Clb)) for the treatment of patients with previously untreated chronic lymphocytic leukemia (CLL). Obinutuzumab+Clb has shown a > 85% reduction in the risk of progression, relapse or death in comparison to treatment with Clb alone (HR 0.14, 95% CI 0.09-0.21, p < .0001), a broadly accepted treatment option for many patients with co-existing medical conditions. The cost-effectiveness of this innovative therapy will need to be assessed in countries using incremental cost-effectiveness thresholds to make reimbursement decisions. **METHODS:** A four-state Markov lifetime model from the UK NHS perspective was developed for patients with existing medical conditions utilizing the patient-level information from the underlying clinical trial comparing obinutuzumab+Clb versus rituximab+Clb and versus Clb alone (CLL11 trial). Transition probabilities from PFS to progression were derived from this study's data. Post-progression survival was estimated using published data and was part of the sensitivity analyses. Cost data (e.g. administration and adverse events), utilities and the prices for rituximab and Clb were retrieved for the UK. As obinutuzumab is not yet approved a range of price assumptions of similar innovative oncology therapies has been applied. **RESULTS:** Based on this early evaluation, obinutuzumab+Clb showed a cost per QALY in the base case analysis of £18,000 to £19,000 when compared to Clb and £29,000 to £32,000 when compared to rituximab+Clb. Probabilistic and deterministic sensitivity analyses confirmed these findings. **CONCLUSIONS:** Obinutuzumab+Clb showed significant patient-relevant clinical benefits and might be a potential cost-effective therapy in comparison to the current standard of care and could hence support access for a maximum number of patients with previously untreated CLL.

PCN113

COST-EFFECTIVENESS OF BREAST CANCER SURVEILLANCE BY LIFETIME RISK IN WOMEN AGED LESS THAN 50 YEARS

Tejjeur C, Harrington P, Murphy L, Ryan M
 Health Information and Quality Authority, Dublin, Ireland

OBJECTIVES: National programmes of breast cancer screening are common for women over the age of 50 at average risk. For women aged less than 50, surveillance may be offered to those at elevated risk either due to family history or because of identified genetic risk factors, such as a BRCA1 mutation. The lifetime risk for these women is not known with certainty. The purpose of this study was to examine the cost-effectiveness of different screening strategies as a function of lifetime risk. **METHODS:** A Markov model was developed to evaluate the cost-effectiveness of different MRI- and digital mammography-based surveillance strategies between the ages of 30 and 49. Costs and benefits were calculated to life expectancy. The perspective was that of the publicly funded health care system in Ireland. Lifetime risk of developing breast cancer was varied between 4% and 94%. A cost-effectiveness threshold of €45,000/QALY was applied. **RESULTS:** The probability of cost-effectiveness increased with increasing lifetime risk. For women at moderate risk (i.e. lifetime risk of between 17% and 30%), cost-effectiveness was only achieved with annual surveillance from the age of 40 to 49 when lifetime risk reached 28% to 30%. For women with high familial risk, cost-effectiveness was achieved for surveillance from the age of 40 to 49. For women with a BRCA1 mutation, surveillance from the age of 40 to 49 was cost-effective for all levels of lifetime risk, while MRI from age 30 was only cost-effective for a lifetime risk of over 65%. **CONCLUSIONS:** Risk levels for breast cancer encompass wide ranges of lifetime risk. The cost-effectiveness of different surveillance strategies is sensitive to lifetime risk and suggests the need for individualised surveillance programmes.

PCN114

COLLABORATIVE CARE FOR DEPRESSION MANAGEMENT IN CANCER: A COST-EFFECTIVENESS ANALYSIS

Duarte A¹, Walker S¹, Richardson G¹, Walker J², Sharpe M², Sculpher MJ³

¹University of York, York, UK, ²University of Oxford, Oxford, UK, ³Centre for Health Economics, York, UK

OBJECTIVES: Collaborative care interventions for comorbid depression have demonstrated their beneficial impact on health outcomes. Depression in cancer patients

is associated with decreased quality of life, and poorer health outcomes. Therefore, there may be considerable gains in the adequate treatment of depression in oncology patients. We explored the cost-effectiveness of a collaborative care intervention specifically developed for the treatment of depression in cancer patients compared to usual practice. **METHODS:** A cost-effectiveness analysis comparing a collaborative care intervention for depression management, Depression Care for People with Cancer (DCPC), in addition to usual care with usual care alone, based on data from the second Symptom Management Research Trials in Oncology (SMaRT-2). SMaRT-2 was a large (n=500), multicentre study, in depressed patients with a relatively good cancer prognosis, in a secondary care setting. Outcomes included costs expressed as UK sterling in 2010-11 prices and health outcomes in quality-adjusted life-years (QALYs), estimated from a National Health Service and Personal Social Services perspective. Scenario analyses were performed to determine the impact on cost-effectiveness of alternative costing assumptions, and uncertainty was characterised through cost-effectiveness acceptability curves and probabilities of cost-effectiveness at key cost-effectiveness thresholds. **RESULTS:** DCPC in addition to usual care was associated with greater costs, but also improved health outcomes. DCPC was found to be cost-effective at accepted cost-effectiveness thresholds. Results were robust across alternative scenarios, with probabilities of cost-effectiveness higher than 90% for cost-effectiveness thresholds ranging between £20,000-30,000 per QALY. **CONCLUSIONS:** Compared to usual care, DCPC in addition to usual care is likely to be cost-effective at current UK cost-effectiveness thresholds. This contributes to the growing evidence on the cost-effectiveness of collaborative care interventions for the treatment of comorbid depression. Future research will use a decision modelling approach to extrapolate trial-based results across a longer time horizon, and incorporate other relevant sources of evidence.

PCN115

PHARMACOECONOMIC EVALUATION OF ABIRATERONE ACETATE VERSUS CABAZITAXEL IN THE TREATMENT OF METASTATIC CASTRATION-RESISTANT PROSTATE CANCER IN KAZAKHSTAN

Kostyuk A, Almadieva A

National Center for Health Development, Astana, Kazakhstan

OBJECTIVES: The purpose of this study was to explore the cost-effectiveness of abiraterone acetate (abiraterone) vs. cabazitaxel in metastatic castration-resistant prostate cancer (mCRPC) patients who progressed after docetaxel in Kazakhstan. **METHODS:** Since no head-to-head trial data were not available for Abiraterone against cabazitaxel, indirect profitability model was developed using clinical data (progression-free survival (PFS), overall survival (OS), adverse events (AEs)) from the pivotal Phase 3 clinical trials COU-AA-301 (Abiraterone) and TROPIC (cabazitaxel). The basic assumption in the model was that the two comparator arms in the trials were "palliative" and are therefore equivalent. Using the resources, in particular for controlling the adverse events was calculated based on data Kazakhstan. For validation purposes, a secondary analysis was conducted using international resources use data. The analysis used a local expenditures 2011-2012, undiscounted. Hospitalization, day hospital visits, medications, and laboratory (we developed a Markov microsimulation model with a lifetime horizon and a direct health-care cost perspective. The patient history was recorded and was used in calculations of transition probabilities, utilities, and costs. Data were taken from the public officially published rates. The cost of purchasing drugs came from recent price lists. Calculations were based on the average duration of treatment for each agent. **RESULTS:** The total cost of treatment was lower for Abiraterone compared with cabazitaxel. Higher costs for the purchase of medicines for Abiraterone were offset by lower administrative expenses and lower AE management costs. Results were confirmed by secondary analysis. All sensitivity analyses from the point of view of the model parameters and modeling assumptions are consistent with the expected findings, which confirmed both internal and external consistency of the model. **CONCLUSIONS:** Abiraterone is a potentially cost-effective option compared with cabazitaxel in the health care system in Kazakhstan.

PCN116

REDUCING THE LENGTH OF ANTIBIOTIC PROPHYLAXIS IN CLINICAL CONDITIONS

Djovic M¹, Jovic R¹, Tomic Z², Sabo A²

¹University of Novi Sad, Faculty of Medicine, Clinical Center of Vojvodina, Novi Sad, Serbia and Montenegro, ²University of Novi Sad, Faculty of Medicine, Novi Sad, Serbia and Montenegro

OBJECTIVES: The aim of this study was to evaluate duration and cost of prophylactic use of antibiotics, as well as occurrence of postoperative infection in the patients (pts) with laryngeal and pharyngolaryngeal carcinoma during 2005 and 2010. **METHODS:** Histories from 87 pts (2005) and 92 pts (2010) who were treated during the year 2005 and 2010 from laryngeal and pharyngolaryngeal carcinoma at the ENT Clinic, Clinical Center of Vojvodina, Novi Sad, Serbia, have been used. All pts received triple drug therapy perioperatively. Since 2009, additional hygienic measures and education of staff (in terms of the proper use of antibiotics) have been taken to improve hospital treatment. From the patients' histories, we followed: average length of hospital stay, average length of administering antibiotics, occurrence of infection or other postoperative complication (fistula) and the price of used antibiotics. **RESULTS:** During 2005, antibiotics were administered as follows: aminoglycosides (amikacin) 2x500mg during 10 days, cephalosporin (cefazolin amp. 2x1g, ceftriaxone 2x1g) 10 days, metronidazole (solutio) 3x500mg 10 days. During 2010, same antibiotics were administered for an average of 3 days. The average length of hospital stay was in 2005. was 13.5 days, x+/- SD=13.5+/-4.2, and in 2010 was 11.18 days, x+/- SD=11.18+/-5.9. The average length of administering antibiotics was 9.4 days in 2005 (x+/- SD=9.4+/-1.1) and in 2010 was 3.4 days (x+/- SD=3.4+/-1.7). Occurrence of infection was in 4 pts (2005) and 6 pts (2010). The cost of used antibiotics in 2005 was 775748 dinars (9320 euros), and in 2010. was 366159 dinars (3698euro). **CONCLUSIONS:** With reducing the length of administering same antibiotics, after additional hygienic and educative measures have been taken, it is possible to significantly reduce the length of hospital stay (while the number of postoperative infections is not significantly increased) and cost of used antibiotics, which altogether leads to reduction of overall cost of hospital treatment.