conducted in 12 sites in Brazil to evaluate resource utilization in unresectable stage III and IV metastatic melanoma patients diagnosed or relapsed between 2008-2009. Frequencies of resources utilization were assessed and multiplied by unit costs, obtained by SIA-SUS (Outpatient Information System) for public health care costing and by CBHPM-2005 (Brazilian Hierarchy Classification of Medical Procedures) for private. **RESULTS:** Of 165 total patients eligible for the study, 119 (57 private sector and 62 public sector) received systemic therapy outside of clinical trials and were therefore eligible for the resource utilization analysis. Across three lines of therapy, 52.9% also received at least one surgery, and 27.7% also received radiotherapy. While receiving systemic therapy, 29.4% were hospitalized, 13.4% had an emergency room visit, 28.7% had an outpatient visit, and 10.1% had a transfusion. A similar proportion received surgery in the private and public health sector (56.1% and 50.0%, respectively), with mean costs USD278 (95%CI USD192-365) and USD437 (95%CI USD322-553), respectively. Hospitalizations were more common in the private sector (45.6%) than the public sector (14.5%). The duration of hospitalization among private patients had a mean duration of 8.7 days per month compared to 3.6 days. Mean costs of hospitalizations were USD1,697 (95%CI USD1,020-2,239) in the private sector and USD1,332 (95%CI USD821-1,842) in the public. **CONCLUSIONS:** In this real-world study in different regions in Brazil, per-patient medical costs in advanced melanoma patients were higher in the private sector than the public sector due to both higher unit cost per resource used and greater utilization of hospitalization.

PCN62

COST IMPACT MODELING OF TARGETED MOLECULAR PROFILING IN THE TREATMENT OF COLON CANCER

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OBJECTIVES: Clinical data supports the use of molecular profiling (MP) to inform therapeutic decisions. In particular, evidence suggests the selection of pharmacotherapy for metastatic colon cancer (mCRC) patients could be further improved by enhancing biomarker informed decision-making. While the clinical data is compelling, our objective was to explore the economic consequences of adopting a commercial MP approach with accompanying therapeutic recommendations (Caris Target Now™) from a payer perspective via a detailed cost-offset model. **METHODS:** Therapeutic recommendations based on a MP approach were compared to current treatment patterns to determine the change in treatment mix and associated treatment costs. Biomarker selection was based on a systematic review of the literature and grading the evidence to support clinical benefit for a specific treatment choice. Oncologists were interviewed to inform and validate modeled treatment pathways based on patterns of biomarker expression in the patient's tumor. Biomarkers evaluated include: BRAF, KRAS, NRAS, PI3KCA, PTEN, EGFR, TOP1, ERRC1, TS, and EML4-ALK. **RESULTS:** In our model, approximately 29% of patients who test positive for response to EGFR inhibitor therapies, under current clinical treatment protocol, have additional biomarkers with compelling data to suggest non-responsiveness. These same patients display biomarkers indicating potential benefit of other drugs. Biomarker-associated change in therapy as suggested by MP, yielded an annual savings of $7.3k per mCRC patient. The adoption of this MP service provided net cost-benefit; treatment costs avoided were substantially higher (232%) than the testing cost. **CONCLUSIONS:** Molecular profiling, including analysis of oncoproteins, gene expression and specific gene mutations, may add significant economic value to the treatment of cancer patients by directing treatments to those most likely to respond. The cost-offsets associated with biomarker-based therapy choice lead to more rational use of high-cost drugs. Implementing therapy for mCRC based on a multi-biomarker, decision-support approach may have potential to improve patient care and decrease costs.

PCN63

THE RELATIVE VALUE OF DASATINIB VERSUS IMATINIB AS FIRST-LINE TREATMENT FOR CHRONIC MYELOID LEUKEMIA

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OBJECTIVES: A relative value analysis (RVA) of first-line treatments for chronic myeloide leukemia, dasatinib and imatinib, was performed from the Spanish National Health System perspective. **METHODS:** A decision model was built according to the European Leukemia Net recommendations. Response and tolerance were assessed based on trial outcomes. The model was run for 1,000 patients initiated on dasatinib (100mg, QD) or imatinib (400mg QD). Dose adjustments or treatment switches for limited response or intolerance were allowed. Ten different cost levers were identified for four sources of value (response, adverse event, adherence and monitoring). Total cost (€, 2012) was estimated over 5-years, with an annual 3% discount rate, by sum of the cost levers and drugs cost (ex-factory price with 7.5% mandatory rebate). Data sources included literature, health costs database and expert opinion. Sensitivity analyses (SA) were performed. **RESULTS:** The final incremental total cost of dasatinib compared to imatinib, resulting from the RVA was €3,355 per patient per year. Difference in drug cost of dasatinib is estimated to be €11,363/patient/year compared to imatinib. Monitoring and treatment of adverse events increased costs by €36/patient/year with dasatinib. Dasatinib, however, is associated with savings in other costs: cases of low dose regimens saved €65/patient/year. Switching for limited response or intolerance decreased costs by up to €6,819 and €563/patient/year respectively, with dasatinib. Costs of non-adherence and other additional management were reduced €466 and €132/patient/year with dasatinib vs imatinib. The SA showed further reductions in the incremental cost of dasatinib when longer term cost savings were included or the share of imatinib patients after intolerance or limited response was increased. **CONCLUSIONS:** The incremental drug cost of dasatinib vs imatinib €11,363 per patient/year (31%) is reduced to €3,355/patient/year (9%) if the cost consequences of the events over 5 years are considered.

PCN64

COST-CONSEQUENCE ANALYSIS (CCA) OF THE TREATMENT OF GROWING SUBEPENDYMAL GIANT CELL ASTROCYTOMA (SEGA) SECONDARY TO TUBEROUS SCLEROSIS COMPLEX (TSC) IN BRAZIL

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OBJECTIVES: To conduct a cost-consequence analysis of the treatment of subependymal giant cell astrocytoma (SEGA) secondary to tuberous sclerosis complex (TSC) with everolimus under the Brazilian public health care system (SUS) and societal perspectives. **METHODS:** A cost-consequence analysis was developed to compare the treatment of SEGA secondary to TSC with everolimus and current treatment options, based on the Phase II trial of everolimus in the indication. Population included patients above 3-years of age. Direct medical costs were estimated from the perspective of the SUS, while direct medical and productivity costs were estimated from a societal perspective. Model inputs for SEGA growth, hydrocephalus and seizure controls were based on the trial results. Use of resources and unit costs were obtained from the national and international literature and administrative databases. Analysis included costs for managing adverse events on everolimus treatment. Costs are expressed in 2011 Reals. Results are presented in terms of incremental cost per patient with everolimus, considering scenarios with and without seizure control. Time horizon was set in two years and no discount was applied. Univariate sensitivity analysis was performed. **RESULTS:** The incremental cost of treatment with everolimus was R$49.790/patient and R$40.131/patient from the perspectives of SUS and society, respectively. Patients treated with everolimus did not experience complications of SEGA growth, and did not undergo surgery to remove the SEGA. If improved seizure control is considered, the incremental cost is reduced to R$48.949/patient and R$39.290/patient from SUS and societal perspectives, respectively. Results were most sensitive to drug cost and average dose. **CONCLUSIONS:** The incremental cost per patient with everolimus in SEGA/TSC can be used as a simple instrument in the HTA process in Brazil, indicating value for money in the comparison of current invasive interventions with novel drug therapy affecting both patients and their caregivers.

PCN65

COST-EFFECTIVENESS ANALYSIS OF INTRODUCING HPV VACCINES IN COLOMBIAN WOMEN

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OBJECTIVES: Cervical cancer (CC) remains the leading cause of cancer death among Colombian women. Human papillomavirus (HPV) 16 and 18 infection is associated with CC while HPV 6 and 11 are related to genital warts (GW). Currently are available 2 vaccines against HPV. Bivalent protects against carcinogenic genotypes and tetravalent also protects against genotypes GW associated. We present the cost-effectiveness evaluation of the introduction of two vaccination strategies in Colombian women taking into account the current screening program. **METHODS:** We designed a Markov model, which simulates the natural history of CC and GW in a cohort of women. The occurrence parameters were extracted and validated with a literature review and national databases. The costs were estimated from costing of standard cases. We estimated the impact of the introduction of bivalent and tetravalent HPV vaccines. We compared the different strategies in a competitive scenario and built the ICERs. A sensitivity analysis was carried out. **RESULTS:** In a cohort of 430,859 women followed for the entire life without vaccination or screening programs 15,284 CC cases and 18,275 GW episodes may occur. The CC would cause 4733 deaths. The screening program would prevent 3015 CC deaths. Either vaccination alternatives prevents 1958 CC deaths additional to screening program, and they are cost-effective when compared against non-vaccination. In a competitive analysis, vaccination with bivalent+screnning is dominated while vaccination with tetravalent+screening is cost-effective (ICER per DALY averted US $ 1239). The results are sensitive to changes in the parameters of progression of neoplastic disease. **CONCLUSIONS:** Economic evaluation of HPV vaccines in Colombian scenario shows that bivalent vaccination is a dominated strategy, while tetravalent vaccination is cost-effective at a willingness to pay less than 1 GDP per capita per DALY averted. The relative advantage of tetravalent is due to avoided of costs and DALYs due to GW.

PCN66

COST-EFFECTIVENESS OF DENOSUMAB VERSUS ZOLEDRONIC ACID FOR SKELETAL-RELATED EVENT (SRE) REDUCTION IN BONE-METASTATIC PROSTATE CANCER (MPC) IN THE UK

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OBJECTIVES: Denosumab reduced SREs versus zoledronic acid in a phase 3 trial, but without significant differences in overall survival, disease progression, or serious adverse events. The cost-effectiveness of denosumab versus zoledronic acid in mPC was assessed from a UK payer perspective. **METHODS:** A Markov model esti-