conducted in health maintenance organizations were more likely to have a PSA screening, compared to physician group settings. General practitioners were more likely to receive PSA-screening compared to other types of specialists. Interactions between race and insurance type were not significant. CONCLUSIONS: Hispanics and individuals insured by Medicaid are less likely to receive PSA-screening during an
admission visit for a BHR, compared to other populations. However, improvement in access to screening, screening services are warranted for these groups. It is necessary to consider the differential impact of PSA-screening policies on medically underserved populations.

PCN184
CANCER CARE COSTS TRENDS IN THE UNITED STATES: FINDINGS FROM THE MEDICAL EXPENDITURE PANEL SURVEY 2008-2011
Haider MA1, Qureshi Z1, Heidari K1, Mihaita S1, Bennett CI, Khan MM1
1University of South Carolina, Columbia, SC, USA, 2Department of Health and Environmental
Control, Columbia, SC, USA
OBJECTIVES: To estimate the annual financial burden of cancer care in the United States and to study effects of cancer on total health care of the country.
METHODS: Direct medical cancer care costs for the years 2008-2011 were estimated using the household component of the Medical Expenditure Panel Survey (MEPS). The sample included adults (18 or older) and covered both insured and uninsured individuals. The total cost of care was calculated by multiplying total care utilization and expenditures for the US civilian non-institutionalized population. The likelihood of having a cancer diagnosis by age, race and insurance status and other variables were also assessed. RESULTS: Aggregate cost of cancer in the US increased from $183 billion in 2008 to $236 billion in 2011. While total out-of-pocket (OOP) costs per cancer case decreased from $1,419.43 in 2008 to $1,254.77 in 2011, total cost per case increased from $10,461.66 to $12,583.69 over 2008 to 2011. The OOP total medical care expenditures per case in 2008 were $1,560.54 and $1,510.69 respectively in 2011 prices using Urban Medical Consumer Price Index. OOP per case declined at an annual rate of 7.3% while the total direct cost increased at an annual rate of about 3.5%. Whites, females and 65-64 year olds were more likely to have a cancer diagnosis and most cancer care costs were covered by private insurers. Geographical location was not associated with cancer diagnosis although the southern region had twice the concentration on population attributable risk. CONCLUSIONS: Our study confirms the impact of cancer in the US health care system. Due to expected increase in the number of incident cases and survival rate, total cost of cancer is likely to increase rapidly over the next decade. With the implementation of the Affordable Care Act, burden of cancer care costs on taxpayers will increase due to higher insurance coverage and lower OOP cost.

PCN188
AN ONLINE PATIENT-ORIENTED RADIATION RISK ASSESSMENT TOOL TO PROJECT CANCER RISK FOLLOWING EXPOSURE TO LOW-IONIZING RADIATION IN CANADA
Zsoul1, Brewer C, Deutsch A
Zsoul Consulting Inc., Westmount, QC, Canada
OBJECTIVES: Increasing use of imaging procedures has raised concerns about the risk of cancer due to repeated exposure to low-ionizing radiation. We developed an online radiation risk assessment tool to project the lifetime attributable risk (LAR) of cancer incidence following repeated exposure to imaging procedures.
METHODS: We developed a risk projection model to assess radiation exposure from imaging procedures, to estimate the lifetime attributable risk (LAR) of cancer incidence and 95% uncertainty limits (UL), according to age, gender, and imaging type. We used the “linear no-threshold” models (extrapolation of risk associated with high-dose ionizing radiation to low-dose exposure). The model has been adjusted using Canadian data to reflect the Canadian population. RESULTS: Selected simulation results are presented. The LAR of cancer incidence for a 50 and 70 year old male, exposed to a single coronary angiogram is 11% (95% UL: 6-22) and 6 (3-12) per 10,000, respectively. As the number of coronary and cervical screenings increase over time, the cancer risk increased to 54 (27-106) and 26 (14-52) per 10,000, respectively. As age increases the excess lifetime risk of cancer decreases. The excess lifetime risk of cancer is higher for females than for males. The LAR of cancer for a 70 year old male and female, exposed to a computed tomography (CT) for suspected stroke is 4 (2-8) and 3.5 (1.8-6) per 10,000, respectively. As the number of CT scans increased from one to five, the total risk of cancer increased to 17 (7.8-33) and 23 (12-43) per 10,000, respectively. CONCLUSIONS: Patients are rarely aware of radiation risk. Physicians often underestimate the magnitude of radiation doses arising from imaging procedures. An online, interactive model might facilitate the decision making process, leading to more informed decisions and improved clinical outcomes.

PCN189
REIMBURSEMENT RECOMMENDATIONS FOR CANCER PRODUCTS WITHOUT STATISTICALLY SIGNIFICANT OVERALL SURVIVAL DATA: A REVIEW OF CANADIAN PCDR DECISIONS
Heyland K1, Samioja I1, Grima DT2
1Cornerstone Research Group, Burlington, ON, Canada, 2Cornerstone Research Group Inc.,
Burlington, ON, Canada
OBJECTIVES: Overall survival (OS) data for cancer products is an important end-
point to consider in reimbursement decision making. Recent reimbursement or economic evaluations have been derived from the Canadian PCDR recommendations by the pan-Canadian Oncology Drug Review (pCDR), occurred despite unavailable statistically significant overall survival data, and (2) the proportion of positive recommendations that noted a lack of overall survival data as a contributing factor. METHODS: Recommendations publicly accessible at www.pcdcr.ca and reimbursementdecisions.com were reviewed for the period 13 July 2011 – 9 December 2013. RESULTS: During this period, 28 submissions contain-
ing OS data were derived from randomized controlled trials (RCT), with 19 including OS as an endpoint. Seven of these 19 indications had statistically significant OS data based on the most recent indication data cut included in the manufacturer’s submission to pCDR, while the remaining 12 either did not have statistically significant OS data or the OS data were immature (i.e., median OS not yet reached) at the time of submission. More than half of the 12 submissions with OS data allowed clients access to the trial (n=9) thereby potentially confounding the clinical benefit of the active therapy. Of the 19 positive recommendations which had an RCT design and assessed OS as an endpoint, progression-free survival (PFS) was stated as the primary endpoint significant with or without additional clinically or statistically significant secondary endpoints. CONCLUSIONS: This study highlights that positive pCDR recommendations may be made in the absence of a clear OS benefit, provided strong PFS and or additional endpoint data exist.

PCN190
INSIGHTS INTO THE PAN-CANADIAN ONCOLOGY DRUG REVIEW RECOMMENDATIONS: THREE YEARS AFTER ITS INCEPTION
Samioja I1, Grima DT2
1Cornerstone Research Group Inc., Burlington, ON, Canada, 2Cornerstone Research Group,
Burlington, ON, Canada
BACKGROUND: In 2010, the permanent national oncology-specific drug review process, pan-Canadian Oncology Drug Review (pCDR), was established to assess the clinical evidence and cost-effectiveness of new cancer drugs and provide recommend-
ations to the provinces (except Quebec) and territories to guide their drug
funding decisions. OBJECTIVES: This study sought to identify characteristics and decision patterns of the pCDR recommendations. METHODS: Twenty-eight recom-
endations, covering 35 requested populations, publicly accessible at www.pcdcr.ca were reviewed from July 2011 to December 2013. Additional information was obtained from the www.reimbursementdecisions.com database. RESULTS: Of the twenty-four positive recommendations for coverage, three were made based on a single-arm phase II trial with no OS data cut included in the manufacturer’s submission to pCDR, while the remaining 19 indications had statistically significant OS data based on the most recent OS data cut. Four positive recommendations were based on additional clinically significant endpoints. Nine negative recommendations were made due to: a) limitations in evidence from phase two trials; b) modest progression-free survival, lack of statistically significant overall survival, lack of quality of life data and poor cost-effectiveness, and c) unclear clinical benefit and an unacceptable cost-effectiveness model. Many economic reviews by pCDR included re-analyses of the cost-effectiveness ratios which in some cases had substantial impact on cost-effectiveness. The most common changes from the submitted analyses where limiting product benefit post-progression, time horizon reductions, or changes to post-progression mortality risk. CONCLUSIONS: Most submissions resulted in a positive funding recommend-
ation. The positive conditional pCDR recommendations support a continued procedural product listing agenda.

PCN191
LESSONS FOR ADAPTIVE LICENSING: ANALYSIS OF CONDITIONALLY APPROVED CA COMPOUNDS, THEIR REIMBURSEMENT STATUS AND REGULATORY REIMBURSEMENT DATA REQUIREMENTS
Steersport PA, Yip CY, Zhang W
People and Value Associates, Cambridgeshire, UK
OBJECTIVES: Understand how conditionally approved (CA) compounds in the EMA have performed in reimbursement assessment. Findings will inform current adaptive licensing initiatives. METHODS: This study re-analysed data on 24 EMA recommendations received and analysed for CA compounds from 2006-2013. HTA reports from reimbursement authorities of the UK (NICE), France (HAS), Germany (G-BA) and Italy (AIFA) were analysed to understand reimbursement status of these products. RESULTS: CA compounds were identified 11 with current CA status, 7 fully approved and 2 withdrawn. Approval was based upon strength of clinical data from FIII/FIII studies. In France, 86% of CA indications were reimbursed, most with an ASRM V. In Italy, 62% of CA indications were reimbursed. Risk sharing agreements (RSA) were used in at least 38% of approvals. In Germany, approximately 50% of CA products licensed after AMNOG were reimbursed. In the UK, only 6 CA products received a positive NICE recommendation, 5 under RSAs to fulfill the cost-effectiveness criteria. CA is granted on limited clinical evidence. Countries using a therapeutic-benefit assessment (e.g. France) reimbursed more CA compounds than cost-effectiveness (CI) driven countries (e.g. UK). RSA is a key tool to win reimbursement in cost-effectiveness countries where high ICER thresholds impede reimbursement (Bosnian) or do not exist (France). Deal with these uncertainties, agreed mechanisms for continual evidence development and RSA implementations should be incorporated into on-going adaptive licensing initiatives.

PCN192
CORRELATION OF HTA DECISION OUTCOMES IN FRANCE AND GERMANY
Sun D1, Beckerman R, Bustamante MMD2
1CBPartners, New York, NY, USA, 2CBPartners, Basel, Switzerland
OBJECTIVES: The objective of this study is to compare the HTA decisions of oncology products in France and Germany and provide insight into the most important asset value attributes that characterize a positive approval in these markets. METHODS: We analysed the G-BA and the HAS assessments of 11 oncology products published during this time period, 28 submissions contain-
ing OS data were derived from randomized controlled trials (RCT), with 19 including OS as an endpoint. Seven of these 19 indications had statistically significant OS data based on the most recent indication data cut included in the manufacturer’s submission to pCDR, while the remaining 12 either did not have statistically significant OS data or the OS data were immature (i.e., median OS not yet reached) at the time of submission. More than half of the 12 submissions with OS data allowed clients access to the trial (n=9) thereby potentially confounding the clinical benefit of the active therapy. Of the 19 positive recommendations which had an RCT design and assessed OS as an endpoint, progression-free survival (PFS) was stated as the primary endpoint significant with or without additional clinically or statistically significant secondary endpoints. CONCLUSIONS: This study highlights that positive pCDR recommendations may be made in the absence of a clear OS benefit, provided strong PFS and or additional endpoint data exist.

A100 VALUE IN HEALTH 17 (2014) A1-A295
since January 1st, 2011. The correlation coefficient was calculated to assess the linear correlation of the difference between each type of cancer and amongst country regions. Regarding metastatic disease the majority of treatment strategies include chemotherapy. Furthermore, outcomes are poor with less than 40% of patients in remission or controlled disease after first year of treatment. The study had limitation regarding that São Paulo state data are not included in RHC-INCA.

PCN195

NAION AND PSA SLOPE IMPACTS UROLOGISTS’ RECOMMENDATIONS FOR ADJUVANT RADIOTherapy FOR PROSTATE CANcer PATIENTS WITH HIGH-RISK PATHOLOGY FOLLOWING RADICAL PROSTATECTOMY

Reynolds MA1, Moul JW2, McDermott1

1Brockman Hospital, Carlsbad, CA, USA; 2Duke University School of Medicine, Durham, NC, USA

OBJECTIVES: To assess the impact on medical decision-making by an in-vitro diagnostic test that predicts the risk of clinically recurrent prostate cancer following prostatectomy. METHODS: The Neoptima DaC4 assay was analyzed. RESULTS: Decrements in the incremental OS benefit measures the linear slope of 3 unsurpassible prostate-specific antigen levels over time. In the 50(4) clinical study, ProsVue was the strongest independent predictor of clinically recurrent prostate cancer in a 304-man cohort study. However, its clinical validity is unestablished. We prospectively enrolled men treated by radical prostatectomy in a multicenter, IRB-approved clinical trial. At post-surgical followup, urologist investigators (N=17) stratified each of their patients into a low, intermediate or high risk group for cancer recurrence based on clinicopathologic findings and documented their initial treatment plan. We employed the CAPRA-S postprostectomy nomogram to standardize risk assessments across the investigative sites. After a patient's ProsVue result was reported, urologists recorded whether or not the patient’s initial treatment plan was changed. The proportion of cases referred for secondary treatment before and after ProsVue and the significance of the difference was determined. RESULTS: Of 225 men randomized (112.0%) were stratified into intermediate and high CAPRA-S risk groups. Investigators reported that they would have reffered 41/128 (32.0%) at-risk men for adjuvant radiotherapy without ProsVue information. After were considered non-significant (117.4%) men. The difference in proportions =-2.0%, 95% confidence interval [CI] -2.9 to -1.0% is significant (p < 0.0001). Odds of a referral after the ProsVue result was reported was significantly reduced (Odds Ratio =-0.28, 95% CI 0.5 to 0.54, p < 0.0001). CONCLUSIONS: ProsVue has significant clinical utility in prostate cancer post-therapy. Receptor A: ProsVue ≥ 12.50 μg/mL/month significantly reduced the proportion of urologists’ recommendations for adjuvant radiotherapy. Followup studies are needed to demonstrate whether or not ProsVue utilization reduces health care costs.

PCN196

FACTORS INFLUENCING USE OF GENE EXPRESSION PROFILING BY PHYSICIANS FOR BREAST CANCER TREATMENT RECOMMENDATIONS

Issa A.M1, Patil D2

1University of the Sciences in Philadelphia, Philadelphia, PA, USA; 2Philadelphia, PA, USA

OBJECTIVES: Relatively little is known about physicians’ decisions to adopt and use GEP to aid in treatment recommendations. The objective of this study was to determine the association between specific characteristics of a GEP assay, Oncotype DX and oncologists’ intention to use this assay in making treatment recommendations for breast cancer patients. METHODS: A nationally representative sample of oncologists treating breast cancer patients was surveyed. Linear regression analysis was performed to establish the association between physicians’ perceptions of Oncotype DX and oncologists’ intention to use this assay. RESULTS: Of 225 oncologists that completed survey, Oncotype DX test characteristics evaluated, ’validity of the test’ (p = 0.006) and ’use of Oncotype DX by oncologists’ (p = 0.005) were more significantly associated with oncologists’ use of the assay. Oncologists’ intention to use Oncotype DX was consistently with their perceptions about its usefulness (p < 0.022). Insurance status of the patient was also significantly associated with physicians’ use of Oncotype DX (p = 0.005). CONCLUSIONS: We report novel associations between perceptions and dispositions to use an adapted technology acceptance model to understand decision-making by oncologists who treat breast cancer patients surrounding the use of GEP in making treatment recommendations. Our study provides insights into the characteristics and innovation factors of a particular genomic diagnostic that affect decision-making by oncologists who treat breast cancer patients. Our findings have implications for knowledge translation efforts related to molecular genomic diagnostics and to the development of future molecular genomic diagnostics.

PCN197

TREATMENT PATTERNS AND BASELINE CHARACTERISTICS OF A PROSPECTIVE COHORT OF PATIENTS WITH ADVANCED NSCLC TREATED IN REAL WORLD COMMUNITY ONCOLOGY SETTINGS

Witte JM1, Williams AO2, Miller TP3

1JACOB Research, Inc., Memphis, TN, USA; 2Genentech, Inc, South San Francisco, CA, USA

OBJECTIVES: Overall objectives are to examine symptom burden and quality of life in prospectively accrued patients with advanced non-small cell lung cancer (NSCLC), treatment patterns and report economic results. METHODS: A prospective, multi-center observational study that enrolled new oncology patients treated with first-line non-small cell lung cancer (NSCLC) in a community oncology setting. Baseline characteristics and treatment patterns of an initial sample of 95 patients. METHODS: Patients first line starting treatment stage III/IV NSCLC were prospectively accrued and followed. Generalized estimating equation was used to determine differences in outcomes. RESULTS: Patients received one of four regimens: A: pemetrexed with cisplatin or carboplatin; B: bevacizumab with chemotherapy doublet; C: chemotherapy doublet; D: bevacizumab, pemetrexed and carboplatin. Site staff collected baseline demographic and clinical information at baseline and at each office visit. Overall target enrollment is 225. RESULTS: Of 95 patients, 40 (42%) were accrued in Regimen A, 17 (17.9%) in Regimen B, 13 (13.7%) in Regimen C, and 26 (26.3%) in Regimen D. Patients were 54±7.4, 87±8.4, 94±11.7. 15.8% had impaired performance status (ECOG ≥ 2) or equivalent, with