

**PCN35**  
**OUT OF POCKET EXPENSES FOR BREAST CANCER SURVIVORS: DIFFERENCES BY TIME SINCE DIAGNOSIS IN A RURAL POPULATION**

Pisu M, Azuero A, McNeese P, Burkhardt J, Meneses K  
 University of Alabama at Birmingham, Birmingham, AL, USA

**OBJECTIVES:** The out-of-pocket (OOP) expenses for care related to breast cancer can be burdensome for survivors. We know little about the kind and amount of OOP for survivors' care, health maintenance and management of side effects. The objective is to report on expenses in 150 participants in the Rural Breast Cancer Survivor Intervention (RBCS), a clinical trial evaluating a psychoeducational quality of life intervention. **METHODS:** Breast cancer survivors recruited for the trial were 1–3 years post diagnosis, at least 21 years old and residing in rural Florida. OOP data collected at baseline included expenditures for Medical Care (hospital, ER, and doctors' bills, medical supplies, drugs, travel to treatment, physical therapy), Counseling and Health Maintenance (family or individual support, alternative treatments, nutritional counseling, exercise or gym/health club memberships, genetic testing/counseling), Side Effect Management (wigs, prostheses), and Home Maintenance (house cleaning/cooking, additional maintenance or child care). We report mean monthly costs for the period from diagnosis to baseline. **RESULTS:** Of 150 mostly white women, 91.3% were insured, 30.0% had incomes > \$50,000, and 60.7% were >24 months post diagnosis. A total of 94.7% reported OOP spending (mean \$119.6, median \$53.6). Medical Care costs and Home Maintenance costs were highest, \$129.3 and \$87.6, respectively, for women 25–36 months post diagnosis. Medical Care costs were lowest for women >49 months post-diagnosis, \$33.7, and Home Maintenance costs were lowest, \$15, for women 10–24 months post-diagnosis. Counseling and Health Maintenance and Side Effect Management costs were highest (\$43 and \$14, respectively) for women 10–36 months post-diagnosis and lowest (\$20 and \$8) for women 37–48 months. **CONCLUSIONS:** Rural breast cancer survivors continue to have OOP costs related to their disease years after diagnosis. Understanding how and how much they spend is important information to be considered in cost-effectiveness analyses of interventions to improve their quality of life.

**PCN36**  
**COST OF ILLNESS FOR PATIENTS WITH METASTATIC COLORECTAL CANCER**

Song X<sup>1</sup>, Zhao Z<sup>2</sup>, Barber B<sup>3</sup>, Gregory C<sup>3</sup>, Cao Z<sup>1</sup>, Gao S<sup>2</sup>

<sup>1</sup>Thomson Reuters, Cambridge, MA, USA, <sup>2</sup>Amgen, Inc, Thousand Oaks, CA, USA,

<sup>3</sup>Thomson Reuters, Washington, DC, USA

**OBJECTIVES:** To estimate the cost of illness and assess the primary cost drivers of treating patients with newly diagnosed metastatic colorectal cancer (mCRC) after the introduction of biologic therapies. **METHODS:** Patients newly diagnosed with mCRC between 2004 and 2008 were identified using a large national claims database of a US commercially insured population. Patients were followed from initial mCRC diagnosis to death, disenrollment, or 7/31/2009, whichever occurred first. mCRC costs were estimated by the cost difference between mCRC patients and their matched non-cancer cohorts. mCRC patients and controls were 1:1 matched on age, gender, geographic region, calendar year of diagnosis, and Deyo-Charlson Comorbidity Index. Both total and component costs (inpatient, emergency room, outpatient, or pharmacy/biologics) were analyzed. The multivariate, survival-based M1 method was used to estimate costs in order to handle a variable length of follow-up and data censoring issues. **RESULTS:** A total of 6,746 mCRC patients met all eligibility criteria for the study. They were matched to patients without cancer, resulting in a 98.9% match rate and a final sample of 6,675 mCRC patients were included in this study. Mean (standard deviation) age was 64.1 (13.1) and 62.6 (14.1) for cases and controls, respectively, and 55.5% were males in both cohorts. Compared with matched patients without cancer, total monthly costs were \$14,585 higher for mCRC patients, which was mainly driven by higher cost of inpatient (\$7,546) and outpatient (\$4,197) care, accounting for over 80% of the total health care costs attributable to mCRC. **CONCLUSIONS:** The economic burden of mCRC is substantial. Inpatient and outpatient care remain key cost drivers in the medical management of mCRC.

**PCN37**  
**BURDEN OF INPATIENT CASES OF ACUTE EXACERBATIONS OF COPD WITH LUNG CANCER IN THE UNITED STATES IN 2006**

Perera P<sup>1</sup>, Skrepnek G<sup>2</sup>

<sup>1</sup>College of Pharmacy, University of Arizona, Tucson, AZ, USA, <sup>2</sup>University of Arizona College of Pharmacy Center for Health Outcomes and Pharmacoeconomic Research, Tucson, AZ, USA

**OBJECTIVES:** To determine: 1) hospitalization charges of acute exacerbations of chronic obstructive pulmonary disease (AECOPD) with lung cancer; and 2) the clinical, socio-demographic, and hospital characteristics associated with inpatient charges. **METHODS:** A retrospective study of the Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP) Nationwide Inpatient Sample for 2006. An AECOPD was identified via ICD-9-CM codes in the first three diagnosis positions: 1) 491.2x identifying AECOPD; 2) 490.x-492.x and 494.x-496 identifying COPD with either pneumonia (480.x-486); or a procedure code for mechanical ventilation (93.90, 96.70–96.72) in any position. Lung cancer in AECOPD was identified by the ICD-9-CM code 162.x. Discharge records were included if patients ≥40 years. Regression analyses were conducted using generalized linear model with gamma family with charges as the primary outcome. Significance was set a priori at the 0.05 level. **RESULTS:** A total of 42521 hospital discharges with mean(±SD) hospitalization charge of \$33436(±43647) and length of stay of 7.0(±6.8) days. In-

hospital mortality was 10.6%. The majority was ≥65 years (73.6%), male (55.2%), had ≥4 comorbidities (62%), with Medicare as the primary payer (75.0%). Among cases that reported race, 84.6% were white. Age <65 year, black race (compared to white), hospitals with larger bed size, urban hospitals (compared to rural), in-hospital mortality, greater number of comorbidities, and presence of specific comorbidities such as congestive heart failure, arrhythmias, pulmonary circulation disorders, cerebrovascular disease, and weight loss were significantly associated (p≤0.01) with increased hospitalization charges. The Midwest and South (compared to North-east) regions, Medicaid (compared to Medicare) and comorbidities such as depression and ischemic heart disease were significantly (p≤0.05) associated with decreased charges. **CONCLUSIONS:** The inpatient burden of AECOPD with lung cancer is substantial with a number of socio-demographic, hospital and clinical characteristics, particularly other comorbidities prevalent in COPD, associated with hospitalization charges.

**PCN39**  
**MORTALITY COSTS FROM GENITAL CANCERS IN MEN—UNITED STATES, 2004**

Li C, Ekwueme DU, Rim SH, Tangka FK

Center for Disease Control and Prevention, Atlanta, GA, USA

**OBJECTIVES:** To estimate mortality costs measured as years of potential life lost (YPLL) and productivity loss in 2004 due to deaths from all cancers and from genital cancers specifically among men in the US. **METHODS:** To estimate YPLL, we used 2004 national mortality data and life tables by multiplying the number of deaths and average remaining life years for specific age groups. To estimate lifetime productivity loss, we applied the human capital approach by multiplying the number of deaths by the expected value of decedents' future earnings estimated using the American Time Use Survey, accounting for both the market value and the imputed value of housekeeping services. We calculated results for age and racial/ethnic groups and for four categories of male genital cancer (prostate, testicular, penile, and other). **RESULTS:** In 2004, deaths from male genital cancers accounted for 309,921 YPLL, 6.8% of the estimated 4.5 million YPLL attributable to deaths from all cancers among US men. Prostate cancer accounted for 94.2% of the YPLL, and testicular cancer accounted for the highest average number of YPLL per death (37.9). Non-Hispanic whites accounted for 75.9% of the YPLL from male genital cancer deaths, and non-Hispanic blacks had the highest YPLL rate (297.0/100,000 men). Overall, genital cancers had the largest relative contribution to YPLL among men aged ≥50 years compared to other age groups. In 2004, the estimated lifetime productivity loss due to deaths from male genital cancers was \$5.4 billion, 5.7% of the estimated \$97.9 billion loss due to deaths from all cancers among US men. **CONCLUSIONS:** Male genital cancers impose a considerable health and economic burden in terms of premature deaths and productivity loss in the United States.

**PCN40**  
**RETROSPECTIVE COST AND OUTCOME ANALYSIS OF BREAST CANCER PATIENTS TREATED IN A BRAZILIAN OUTPATIENT CANCER CENTER (OCC)**

Teich N<sup>1</sup>, Souza CPR<sup>1</sup>, Teich V<sup>1</sup>, Cintra M<sup>1</sup>, Musacchio JG<sup>2</sup>, Vieira FM<sup>1</sup>

<sup>1</sup>MedInsight, Rio de Janeiro, Rio de Janeiro, Brazil, <sup>2</sup>COI—Clinicas Oncológicas Integradas, Rio de Janeiro, Rio de Janeiro, Brazil

**OBJECTIVES:** To determine the cost and outcome related to breast cancer patients treated in a Brazilian OCC in Rio de Janeiro, Brazil. **METHODS:** This is a retrospective study of women with breast cancer treated at a private practice OCC in Rio de Janeiro, Brazil. All the patients were covered by Amil, a Brazilian HMO. Direct costs (DC) of 199 patients diagnosed since 2002 and followed to the end of 2009 were analyzed and correlated to clinical stage. We used Kaplan-Meier method to analyse patients' outcome. **RESULTS:** Forty-eight percent of women were diagnosed in stage I, 34% patients in stage II, and only 2.5% were diagnosed in stage IV, similar numbers to those seen in developed countries. The average DC of their medical care per patient was 21,658.94 USD for stage I compared to 48,295.29 USD for stage II, and were 63,662.06 USD for stage III and 63,697.33 USD for stage IV. We also observed that DC per patient-year increased according to clinical stage. In the first year, average cost was 15,183.85 USD for stage I, while it was 44,160.74 USD for stage IV. Those DC decreased along the years in all stages. For example, in the seventh year of follow-up, the average DC was only US\$ 467.27 for stage I (2005 purchasing power parity index 1 USD = 1.4 BRL). The 5-year overall survival and progression free survival were 100% and 100% for stage I, 92.2% and 91.9% for stage II, 87.5% and 82.1% for stage III, and 60% and 60% for stage IV, respectively. **CONCLUSIONS:** Breast cancer accounts for a significant part of the health insurance budget. Later stage at diagnosis is associated with higher DC per patient-year of treatment, and lower probability of 5-year survival.

**PCN41**  
**HEALTH CARE COST OF BREAST CANCER: A CLAIMS DATA ANALYSIS**

Fu AZ<sup>1</sup>, Chen L<sup>2</sup>, Christiansen NP<sup>3</sup>, Sullivan SD<sup>4</sup>

<sup>1</sup>Cleveland Clinic, Cleveland, OH, USA, <sup>2</sup>Sanofi-Aventis, Bridgewater, NJ, USA,

<sup>3</sup>Medical University of South Carolina, Charleston, SC, USA, <sup>4</sup>University of Washington,

Pharmaceutical Outcomes Research and Policy Program, Seattle, WA, USA

**OBJECTIVES:** There is a paucity of updated literature on the total direct costs of breast cancer (BC) from a US managed care perspective. This study was conducted to analyze the economic burden of BC with a focus on direct health care cost in the US. **METHODS:** This was a retrospective matched cohort study using a large claims