

**OBJECTIVES:** To estimate burden of disease of hepatitis C (HVC) infection in Colombia **METHODS:** Different research methodologies were used: systematic literature review methodology to identify parameters of disease frequency described in national and international studies. For all calculations the population of Colombia was taken as projections National Administrative Department of Statistics. Other important source of information was the burden of disease studies conducted by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. **RESULTS:** In Colombia are estimated between 250,000 and 350,000 people HCV carriers, currently. Of these, annually are attended in the General System of Social Security in Health, between 1100 and 1500 patients. The deaths expected by Liver cirrhosis secondary to hepatitis C are between 1,400 and 1,600. By other side, the deaths annually associated with Liver Cancer related with Hepatitis C are between 750 and 850 deaths. This would generate about 40,000 and 55,000 DALYs representing the between 84.8 and 106.1 DALYs per 100,000 people in Colombia in 2014. **CONCLUSIONS:** The burden of disease Hepatitis C in Colombia show that it is a public health problem important for the health system and society.

## PHS21

## EXAMINING RISK FACTORS AND PREDICTING READMISSIONS IN COPD PATIENTS

Sickler A, Wang QC, Chawla R, Nigam S  
Independence Blue Cross, Philadelphia, PA, USA

**OBJECTIVES:** To determine clinical, socio-demographic and member-level factors associated with hospital readmissions in COPD patients and identify COPD patients at high risk of two or more hospital readmissions within 6 months post-discharge. **METHODS:** Commercial and Medicare health plan members who were identified with COPD and incurred an index admission for a COPD-related condition from August 2011 through July 2013 in Southeastern Pennsylvania and surrounding counties were prospectively evaluated using health insurance claims and consumer data. COPD patients were identified using clinical diagnoses defined by Centers for Medicare and Medicaid Services. Readmission was defined as two or more all-cause hospital admissions within 6 months after the index admission. Risk factors including but not limited to utilization, pharmacy, comorbidities, laboratory results, and vaccinations were examined and measured up to one year prior to the index admission and during the hospitalization. Socio-demographic and member-level factors were also evaluated for model predictability. **RESULTS:** Within 6 months post-discharge, of the 7,206 COPD patients, 7.7% had two or more readmissions. Bivariate analysis found that comorbidities and utilization were large predictors of readmissions. Additional significant factors included oxygen use, B-type natriuretic peptide testing, quinolone antibiotic use and education level. Multivariate analysis using logistic regression found prior admissions, ER visits, specialist visits, comorbid with cellulitis, myocardial infarction, renal disease, diabetes and low education to be among the highly predictive variables. The model yielded a lift of 3.1 for the top 5% of the population and produced a Positive Predictive Value of 27%. **CONCLUSIONS:** Our model identified specific combinations of clinical, socio-demographic and member-level factors that improved our ability to identify COPD patients at the highest risk of readmission. Further research is needed to validate model results and apply clinical analytics into intervention and outreach programs aimed at preventing future readmissions.

## PHS22

## TREATMENT FOR SUBSTANCE USE AND IMPLICATIONS FOR MORTALITY IN ELDERLY PROSTATE CANCER PATIENTS

Chhatre S, Malkowicz SB, Metzger DS, Jayadevappa R  
University of Pennsylvania, Philadelphia, PA, USA

**OBJECTIVES:** To analyze the association between non-pharmacological treatment of substance use and mortality in elderly Medicare patients with advanced prostate cancer and substance use disorder. **METHODS:** SEER-Medicare linked database between 2000 and 2009 was used. From the cohort of men diagnosed with advanced prostate cancer between 2001 and 2004, we identified those with a diagnosis of substance use using ICD-9 codes of 291 (Alcoholic psychosis); 292 (Drug psychoses); 303 (Alcohol dependence syndrome); 304 (Drug dependence); and 305 (Non-dependent use of drugs). For this cohort of elderly with advanced prostate cancer and substance use, we used inpatient, outpatient and provider claims to determine non-pharmacological treatment for substance use. The association between treatment for substance use and five-year mortality was analyzed using Cox regression. **RESULTS:** Of 1509 elderly with advanced prostate cancer and substance use disorder, only 10% had a claim related to non-pharmacological treatment of substance use in the five-year period post-cancer diagnosis. Demographic and clinical attributes were comparable between those treated for substance use vs. those not treated for substance use. Cox regression indicated that treatment for substance use was associated with lower hazard of all-cause mortality, compared to those not treated for substance use (HR 0.63 ; 95% CI 0.46, 0.86). **CONCLUSIONS:** In elderly prostate cancer patients with substance use disorder, substance use treatment appears to have beneficial effect on mortality. However, the utilization of substance use treatment was only moderate. Prostate cancer incidence increases exponentially with age and therefore, an aging population will exert significant burden on healthcare system. Substance use disorder remains a neglected co-morbidity in elderly cancer patients. Along with policies to effectively screen and treat substance use in elderly prostate cancer patients, policies for enhancing utilization of substance use treatment by elderly cancer patients are necessary.

## PHS23

## RELATION BETWEEN HEALTH INSURANCE COVERAGE AND OUTCOMES AMONG WOMEN WITH BREAST CANCER IN FLORIDA

Tawk RH<sup>1</sup>, Ali A<sup>2</sup>, Adunlin C<sup>2</sup>, Xiao H<sup>2</sup>

<sup>1</sup>Florida A&M University, Tallahassee, FL, USA, <sup>2</sup>Florida A & M University, Tallahassee, FL, USA

**OBJECTIVES:** Breast cancer (BC) poses disproportionate burden of disease among medically underserved and minority women. African-American women continue

to be diagnosed with advanced BC and to have the highest mortality rates and the poorest survival rates from BC. The purpose of the study is to determine the relationship among race, insurance, and BC death. **METHODS:** African Americans and Non-Hispanic Whites female BC patients diagnosed between 2007 and 2010 in Florida, and treated at a network of 9 hospitals were identified by electronic medical record search. BC incidence cases were obtained from Florida Cancer Data System (FCDS) which is the largest population-based cancer incidence registry in the nation. FCDS cases were linked to Electronic Medical Records (EMRs). Cause specific survival was the major Outcome measure. Nonparametric survival curves for the various insurance categories were generated using the Kaplan-Meier method. Socio-demographics included age at diagnosis, race, insurance, marital status, poverty level. Tumor characteristics consisted of tumor stage, tumor grade, tumor size, estrogen receptor status, progesterone receptor status. Risk of BC death was first examined as a function of insurance status. Hazard ratios were then obtained using Cox proportional hazards model after adjusting for socio-demographics, tumor characteristics when associating insurance status with BC related death. **RESULTS:** Study population was older (74% more than 50 years old), had more whites, 55.55 % were married and included a greater proportion of patients on public coverage (46%). Survival was worse for uninsured patients than for privately insured patients with all stages. The adjusted risk of BC death was 40% higher for uninsured patients than for privately insured patients. **CONCLUSIONS:** Uninsured patients presented with worse survival than did privately insured patients. Findings from this study demonstrate that patients without insurance experience worse outcomes and would benefit the most from improved access to screening and optimal cancer care.

## HEALTH SERVICES – Cost Studies

## PHS24

## PERIPHERAL ARTERIAL DISEASE MANAGEMENT PROGRAM: SCREENING-RISK FACTOR MANAGEMENT PROGRAM AND FINANCIAL RETURN ON INVESTMENT

Luque A<sup>1</sup>, Junqueira Junior SM<sup>1</sup>, Cabra HA<sup>2</sup>, Andrade PC<sup>1</sup>, Oliveira FM<sup>1</sup>

<sup>1</sup>Johnson & Johnson Medical Brazil, Sao Paulo, Brazil, <sup>2</sup>Johnson & Johnson Medical, Mexico city, Mexico

**OBJECTIVES:** Peripheral arterial disease (PAD) is a high prevalence disease after 50 years old, with considerable impact in quality of life, productivity, disability and longevity. Screening program for high risk populations followed by risk factors modification seems to be a cost effective strategy, but adherence to treatment is crucial to achieve clinical and financial goals. The aim of this study was to evaluate the minimal adherence rate, to risk factors drugs modification to achieve the return of investment for screening-management programs in the Brazilian public health system context. **METHODS:** a decision tree – return of investment model was developed in Excel® to analyze the impact of implementing a screening-management program for early detection and risk management modifications in peripheral arterial disease. Effectiveness of drugs to control the risk factor and reduce the risk of major cardiovascular events and major leg events was extracted from literature. Direct costs included treatment cost, exams, physician visits and events (AMI and Stroke), indirect cost was calculated considering the loose of productivity. The system overload with screening program, including physician visits and exams were considered in the model. **RESULTS:** Our hypothetical population was 2,844,201 subjects from Rio de Janeiro city, with a prevalence of PAD after 55 years old of 10% (133,185) and the prevalence of intermittent claudication of 5% (66,592). The total cost of implementing the screening-risk management program for the entire population was R\$8,576,758.52, the financial equilibrium was achieved with full adherence of 46,3% of subjects, with a reduction of R\$4,201,429,36 with system efficiency improvement, R\$4,395,630,65 with indirect costs reductions and R\$738,565,00 with direct costs reductions. **CONCLUSIONS:** A screening-risk factor management program for improve the quality of assistance for PAD is feasible in the Brazilian public health system context and achieve its equilibrium with full adherence to risk factor management of 46,3% of subjects.

## PHS25

## ECONOMIC BURDEN OF ADVERSE EVENTS ASSOCIATED WITH FIRST LINE METASTATIC RENAL CELL CARCINOMA (mRCC) TREATMENT IN PUBLIC AND PRIVATE BRAZILIAN PERSPECTIVE

Ferreira CN, Santana CF, Rufino CS

Pfizer Brasil, São Paulo, Brazil

**OBJECTIVES:** This study analyzes the cost of adverse events associated with metastatic renal cell carcinoma (mRCC) treatments of pazopanib and sunitinib. **METHODS:** A cost analysis was performed based on the published data of the COMPARZ study. All adverse events (AEs) were identified based on the AEs reported in this study. Cost information related to the treatment of the most frequent adverse events (>15% in the study population (n= 1,100 individuals) were obtained. These events included in the analysis were hepatotoxicity, anemia, nausea, fatigue and diarrhea. The perspective adopted in this analysis was of the Unified Health System (SUS) and Brazilian Supplementary Healthcare (SS). For reckoning purposes, the Medication Market Regulation Chamber (CMED/ ANVISA) listed prices were used. **RESULTS:** Were obtained the following results for sunitinib vs pazopanib treatment course respectively: In SUS perspective: Increased ALT (BRL 107,24 / BRL 149,63), Anemia (BRL 47,72 / BRL 24,65), Diarrhea (BRL 231,44 / BRL 255,8), Fatigue (BRL 22,67 / BRL 19,79), Hypertension (BRL 618,79 / BRL 694,26), Nausea (BRL 176,49 / BRL 172,65), Thrombocytopenia (BRL 66,29 vs BRL 34,85). When considering costs incurred from private pay perspective such as SS, we observed the values were increased ALT (BRL 810,84 / BRL 1131,40), Anemia (BRL 269,31 / BRL 139,14), Diarrhea (BRL 787,41 vs BRL 870,29), Fatigue (BRL 205,51 / BRL 179,42), Hypertension (BRL 1017,91 / BRL 1142,04), Nausea (BRL 782 / BRL 765), Thrombocytopenia (BRL 328,49 / BRL 172,67). **CONCLUSIONS:** A therapy that has less financial impact on the treatment of adverse events is the choice of sunitinib for both public (6% decrease) and private (5%).