the utilization of that services in Ghana. METHODS: Data were derived from the nationwide administrative dataset of the National Health Insurance Fund Administration (OIEF), the only health care financing agency in Ghana. The study included patients who were referred to orthopedic services at either of the 462 orthopedic clinics in the country, within 2011. RESULTS: The total number of patients was 1,190,000 (1193 visits/10,000 population). The average utilization rate per 100,000 people was 238 (95% CI 234.0 240.6), while the average reimbursement of one patient was 65,345 HUF (234.0 240.6). CONCLUSIONS: We found that only 0.5% of the population had access to orthopedic care in 2011. Further development of orthopedic care services should be encouraged in order to reduce unnecessary hospital care.

PHS88
THE ROLE OF GEOGRAPHICAL PROXIMITY AND SERVICE CHARACTERISTICS ON PROMPT ACCESS TO HEALTH CARE IN CHPS SETTING IN RURAL BAWJASE OF GHANA
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OBJECTIVES: Prompt access to effective health care is a priority in the development of health care systems. The study aimed at identifying factors that influence health care access in the CHPS zone.

PHS90
COMPARISON IN LENGTH OF HOSPITAL STAY RELATED TO THE DIAGNOSIS OF COPD PATIENTS BEFORE AND AFTER A PROGRAM OF PHARMACOTHERAPY MONITORING
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OBJECTIVES: To compare the admission rates in COPD hospitalization related to the diagnosis in a group of Chronic obstructive pulmonary disease (COPD), before and after their status as beneficiaries of a Pharmacotherapy Monitoring (PM). METHODS: Descriptive study, retrospective and comparison of results. The sample was a registry of patients during a month of 2012. The analysis was performed a month before the intervention by PM, during this period they were recorded and classified as related or unrelated to the diagnosis COPD, all hospital admissions of patients, were classified per day stay and days between the days before and after was built. RESULTS: Before the intervention by PM, 24% of patients had at least one hospital admission versus a 19% after, average length of stay before and after for both cases was 13 days with standard deviations of 11 and 13 respectively. 18% of the patients reported a decrease in the length of stay, 66% remained the same and 15% reported an increase. The differences in the sociodemographic characteristics of patients with decreases and increases in the length of stay were those belonging to the average age (79 and 73 respectively) and schooling, where 22% of patients who had increases in the length of stay achieved at least high school degree compared with 34% of those who decreased. CONCLUSIONS: The comparison using descriptive statistics shows that the outcomes may be the result of intervention by PM. The significance of schooling outcomes lies in that the interventions made by PM, 72% are educating the patient/caregiver, which implies that a higher educational level would reflect greater response capacity. This work is a first step in a cohort comparison study.

PHS91
INCREASED BURDEN ON PRIMARY CARE PHYSICIANS PRECEDING DIAGNOSIS OF ALZHEIMER’S DISEASE IN THE UNITED KINGDOM
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OBJECTIVES: To examine medical resource utilization patterns prior to and post-Alzheimer’s disease (AD) diagnosis in UK primary care. METHODS: Newly diagnosed patients with non-early onset AD between January 1, 2008 and December 31, 2010 were identified from the UK CPRD-GOLD database. The index date was defined as the first AD diagnosis. Eligible patients had a continuous record for the 3-year prior index period and 1-year post period, and were ±65 years of age. Controls were identified by matching within 1 year of index date on birth, gender, region, and Charlson co-morbidity index with a 1:1 ratio. Medical resource utilization was calculated over the 4-year study period at 6-month intervals. T-tests, chi-square tests, and Wilcoxon rank-sum tests (depending on the data type and distribution) were used comparing between AD and control. RESULTS: Cohorts of 389 AD patients and 7792 controls were extracted. At index date, patients had a mean age (SD) of 78.9 (6.5) years and 65% were female. The mean primary care consultation rate per 6-month was higher within the AD cohort than the control cohort (37% vs. 25% over the 4-year period). The proportion of patients with a secondary care referral were higher within the AD cohort than the control cohort (37% vs. 25% over the 4-year period). The proportion of patients with a secondary care referral were higher within the AD cohort than the control cohort (37% vs. 25% over the 4-year period). CONCLUSIONS: A clear increase in primary care consultations in the 6-month period prior to AD diagnosis and its continuation in the year post-diagnosis suggest AD imposes a substantial burden on UK primary care.

PHS92
VULVAR CANCER-RELATED HOSPITALIZATIONS IN THE UNITED STATES: A RETROSPECTIVE POPULATION-BASED CASE-CONTROL STUDY
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OBJECTIVES: The objective of this study was to determine the inpatient burden among women diagnosed with vulvar cancer using the 2009 Health Care Utilization Project Nationwide Inpatient Sample (HCUP-NIS) database. METHODS: A retrospective, cross-sectional study design was used. Inpatient burden among women with vulvar cancer (cases) was compared to those without vulvar cancer (controls). Further, factors predicting average length of stay (LOS), total charges, and mortality among cases were determined. Multivariate PROC SURVEY logistic regression analysis were performed using SAS ver 9.2. RESULTS: In 2009, there were 6,318 hospitalizations among women with vulvar cancer in the US. The overall rate of vulvar cancer-related hospitalizations was 31.89/100,000. The average total charge per case was $171,825, and the average LOS was 4.14 days. Cases were more likely to be discharged to home than to a short-term hospital (62% vs. 54%). Total charges were higher among cases versus controls. Average LOS was significantly longer among cases discharged to other health facilities as compared to cases that were not discharged. Mortality among cases was lower compared to controls (1.9% vs. 7%). CONCLUSIONS: Inpatient admission-related hospitalizations were associated with longer LOS. An increase in the number of procedures recorded and longer LOS were associated with higher total charges. Inpatient mortality was higher among women of lower income and those admitted to rural hospitals compared to vulvar cancer women of higher income and urban hospitals. The LOS and number of diagnoses on record. CONCLUSIONS: To the best of our knowledge, this is the first study to use a nationally representative database to provide information related to inpatient burden among women with vulvar cancer. Policy makers could use study results when making resource allocation.
decisions, with the aim of improving inpatient outcomes among women with vulvar cancer.

PHS93 PATTERNS OF CARE, COSTS AND OUTCOMES OF CHEST PAIN PATIENTS WITHIN TWO YEARS OF INITIAL VISITS TO THE ER Abbas IM1, Virani SS2, Farhki K3, Taychakhoonavudh S4, Ganduglia C5, Franzini L1 1The University of Texas School of Public Health, Houston, TX, USA, 2Bayley College of Medicine, Houston, TX, USA OBJECTIVES: To describe the pattern of care, costs, and outcomes of chest pain patients at two years after an initial ER visit using large longitudinal claim database. METHODS: This was a retrospective cross-sectional study using BlueCross BlueShield of Texas claims data of patients with unspecified chest pain (from 2008 to 2011). Only patients who had three years of continuous enrollment with six months prior to their initial visits to the ER and at least two years of follow-up after the ER visit were included. Patients were categorized into four groups: group1 included patients who were sent home after their ER visit, group2 included patients who were admitted into observation units, group3 included patients who were admitted into inpatient care and group4 included patients who were transferred into observation units and then inpatient care. The measured outcomes included myocardial infarction (MI), invasive cardiac procedures and associated costs of circulatory diseases subsequent to the emergency room visits up to two years of follow-up. RESULTS: A total of 17,627 met the inclusion criteria. Of those, 23.30% enrollees (40,219) had ER visits. Group1 included 28.1% of the total patients, group2 included 66.77%, group3 included 1.13% and group4 included 4.04%. The highest percentage of PTCA and CABG procedures were observed in group3 (13%, 11.7%) followed by group4 (7.9%, 4.1%) and group(3.3%). Group3 had also the highest cost associated with circulatory diseases ($3,084) followed by group4 ($1,496), group1($1,154) and group2($0). CONCLUSIONS: Based on the preliminary descriptive statistics, patients admitted to observation units, in our population, had the lowest percentage of cardiac invasive procedures and circulatory diseases associated costs at two years of follow-up after an initial ER visit with chest pain.

PHS94 IMPACT OF ADVERSE DRUG EVENTS ON HOSPITAL LENGTH OF STAY AND HOSPITALIZATION COSTS IN HOSPITALS FOR 2003-2009 IN THE UNITED STATES Lee SM1, Kim CM2, Lim SJ3, Suh DS4 1Chung-Ang University, Seoul, South Korea, 2Catholic University College of Medicine, Seoul, South Korea OBJECTIVES: To assess the effects of adverse drug events (ADEs) as the reason for admission on hospital length of stay (LOS) and hospitalization costs in US hospitals. METHODS: The study used the Nationwide Inpatient Sample of the Healthcare Cost and Utilization Project for 2003-2009. ADEs were defined as drug poisoning due to inappropriate medication uses or errors and adverse effects from drugs administered. A case-control matching method was used to determine the hospitalization costs attributable to ADEs. For each ADE patient, one control patient was matched based on sex, age(±5 years), race, exact diagnosis, same hospital and same calendar year of discharge. LOS and hospitalization costs attributable to ADEs were estimated using the predicted method. This method predicted outcomes for patients with ADEs by calculating outcomes using estimated coefficients from all sample using generalized linear model after adjusting for the study variables. Then, LOS and hospitalization costs attributable to ADEs were estimated using the predicted method. The method predicted outcomes for patients with ADEs by calculating outcomes using estimated coefficients from all sample using generalized linear model after adjusting for the study variables. Then, LOS and hospitalization costs attributable to ADEs were estimated using the predicted method. This method predicted outcomes for patients with ADEs by calculating outcomes using estimated coefficients from all sample using generalized linear model after adjusting for the study variables. Then, LOS and hospitalization costs attributable to ADEs were estimated using the predicted method. This method predicted outcomes for patients with ADEs by calculating outcomes using estimated coefficients from all sample using generalized linear model after adjusting for the study variables. Then, LOS and hospitalization costs attributable to ADEs were estimated using the predicted method. CONCLUSIONS: This methodology significantly increases LOS and hospitalization costs. To reduce these outcomes, it is necessary that a systematic approach to improve drug use process is undertaken including the monitoring of ADEs as an important outcome of pharmacotherapy.

PHS95 INCREMENTAL HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH AUTOSOMAL DOMINANT POLycystic KIDNEY DISEASE Ivy SN1, Vendetti NJ2, Levy DI3, Thomas JI 1Purdue University, College of Pharmacy and Regenerative Center for Healthcare Engineering, 2Center for Health Outcomes Research and Policy, West Lafayette, IN, USA, 3Pfizer, Inc., Collegeville, PA, USA OBJECTIVES: Incremental health care resource utilization associated with autosomal dominant polycystic kidney disease (PKD) was estimated. METHODS: Study subjects were patients who had large administrative databases and enrollment data. Individuals 18 y/o or older, enrolled in tracked health plans for 12 months from April 1, 2011 through March 31, 2012, and with an ICD-9-CM diagnosis code for “polycystic kidney, autosomal dominant” (753.13) or for “polycystic kidney, unspecified type (753.12) were identified as having autosomal dominant PKD. A comparison group of individuals who met all inclusion criteria except were not classified as having autosomal dominant PKD, autosomal recessive PKD, cystic kidney disease, chronic kidney disease stage 3 or higher, nephrotic syndrome, diabetic kidney disease or kidney stones associated with cystic kidney disease was matched one-to-one with individuals with PKD on age and gender. Zero-inflated negative binomial models estimated associations between PKD and hospitalizations, hospital days, nursing home stays, nursing home days, inpatient psychiatric hospital stays, inpatient psychiatric hospital days, emergency room visits and outpatient visits, after adjusting for age, gender, Charlson co-morbidity index, cardiovascular disease, diabetes and geographical region. RESULTS: A total of 3484 individuals with PKD, satisfied selection criteria and were matched with 3844 individuals without PKD. The sample was 53% female and 55% were between 45 to 64 years old. The PKD group was more likely to have cardiovascular disease (26.6% vs. 13.3%, p<0.001), diabetes (14.1% vs. 10.0%, p<0.001) and Charlson comorbidity index scores greater than zero (55.8% versus 37.5%, p<0.001). Autosomal dominant PKD was associated with marginally more, mean (standard error), hospitalizations 0.09 (0.01), p<0.001, hospital days 0.68 (0.08), p<0.001, emergency room encounters 0.29 (0.06), p<0.001 and outpatient encounters 6.9 (0.28), p<0.001. CONCLUSIONS: Autosomal dominant PKD was associated with incrementally greater health care resource utilization especially for outpatient encounters.

PHS96 HEALTH CARE USE AND EXPENDITURES IN DIABETES PATIENTS WITH CANCER Alfaie A1, Lai L2 1Nova Southeastern University, Plantation, FL, USA, 2Nova Southeastern University, Ft. Lauderdale, FL, USA OBJECTIVES: To investigate the prevalence of cancer comorbidity in individuals with diabetes, and its association with health care use and expenditures. METHODS: Our study was conducted with a quasi-experimental design approach. Subjects included patients who reported having diabetes from the 2010 Medical Expenditure Panel Survey (MEPS). The propensity scores technique was utilized to match patients with cancer versus without cancer to reduce selection bias in observable risk factors such as age, sex, race/ethnicity, physical activity, smoking and body mass index. Further, a series of weighted inferential statistics were used to test the effect of cancer comorbidity on the variables associated with health care use and expenditures. All analyses were accomplished by taking into consideration with MEPS sample clustering, stratification, and weight adjustments using SAS 9.22 analytical software. RESULTS: There were an estimated 21.03 million non-institutionalized adults who reported having diabetes in the US in 2010, of which, 3.89 million (18.5%) had cancer comorbidity. Individuals with diabetes were twice as likely as a comparable sample from the general US population to be diagnosed with cancer (odds ratio 2.1, 95% CI 1.9-2.49). Variables associated with health care use and expenditures (total office-based use and expenditures, outpatient department use and expenditures, emergency facility use and expenditures, prescription medication use and expenditures, etc.) for individuals with cancer were significantly higher than those without cancer (p< 0.0001). CONCLUSIONS: Our study findings indicate the cancer individuals with diabetes are associated with increased health care use and expenditures. The major implementation may be benefit from early identifying selected diabetes patients because they seem to be at higher risk for cancer.

PHS97 WITHDRAWN