observed claim were excluded. Cumulative rates were estimated for all HF-related hospitalizations, cardiovascular (CV) hospitalizations and all-cause hospitalizations, within the study period. Results were further categorized by types of insurance, specifically, commercial and Medicare advantage. **RESULTS:** A total of 85,938 patients met the study criteria of which 68.3% (n=58,732) had Medicare advantage coverage and 31.7% (n=27,206) had commercial insurance. The mean age was 63 years for patients with commercial insurance and 77 for those with Medicare advantage. For the total population (commercial + Medicare advantage), the cumulative hospitalization rate, inclusive of the first hospitalization, was 1.07 per patient-year for HF-related hospitalizations, 1.16 for CV-related hospitalizations (inclusive of HF) and 1.76 for all-cause hospitalizations. Cumulative hospitalization rates for patients with commercial insurance were 0.93, 1.00 and 1.52 for HF-related, CV, and all-cause hospitalizations, respectively. For patients with Medicare advantage coverage, the cumulative hospitalization rates were 1.14, 1.24 and 1.88 for HF-related, CV, and all-cause hospitalizations, respectively. **CONCLUSIONS:** Patients with heart failure who have been hospitalized have frequent subsequent hospitalizations. On average, these individuals were hospitalized at least once a year for worsening heart failure, irrespective of their coverage.

PCV113

ASSESSING THE HEALTH CARE RESOURCE UTILIZATION AND ECONOMIC BURDEN AMONG U.S. CARDIOVASCULAR DISEASE PATIENTS IN THE VETERANS HEALTH ADMINISTRATION POPULATION

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OBJECTIVES: To assess health care resource utilization and costs among U.S. patients diagnosed with cardiovascular disease (CVD) using the Veterans Health Administration (VHA) dataset. **METHODS:** Patients diagnosed with CVD or who underwent CVD-related procedures were identified (International Classification of Disease, 9th Revision, Clinical Modification [ICD-9-CM] diagnosis codes 410, 412, 411.1, 411.81, 411.89, 434, 436, 437.0, 437.1, 438, 997.02, 435 and 428, ICD-9 procedure codes 00.66, 36.09 and current procedural terminology [CPT]-4 codes 33503-33545) using the VHA dataset from 01OCT2008 through 30SEPT2012. The initial diagnosis date was designated as the index date. Patients without a CVD diagnosis, who were of the same age, race and gender as study CVD patients, were identified for comparison. An index date was selected at random to minimize bias. Patients in both groups were required to be age ≥18 years with continuous medical and pharmacy benefits 1 year pre- and post-index date. One-to-one propensity score matching (PSM) was used to compare health care resource utilization and costs between the CVD and comparison groups during the follow-up period, adjusting for baseline demographic and clinical characteristics. **RESULTS:** After risk-adjusted analysis using PSM, 536,125 patients in each group were matched. More CVD patients had inpatient admissions (14.40% vs. 1.43%, p<0.0001) and emergency room (14.89% vs. 3.66%, p<0.0001), outpatient office (60.90% vs. 47.19%, p<0.0001), outpatient (61.35% vs. 47.99%, p<0.0001) and pharmacy visits (64.41% vs. 54.89%, p<0.0001) compared to those without CVD. CVD patients also incurred higher costs. Costs were significantly higher for CVD patients than for those without CVD ($8,248 vs. $1,638, p<0.0001). **CONCLUSIONS:** CVD patients in the VHA population more frequently utilized health care resources and incurred higher costs than those without CVD.

PCV114

STUDY ON THE INPATIENT HOSPITAL COSTS OF HEMORRHAGIC STROKE INPATIENTS IN CHINA

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OBJECTIVES: By estimating the direct medical cost of hemorrhagic stroke inpatients with urban basic health insurance scheme(exclude new rural cooperative medical care system)from 2010 to 2012 in China, we try to provide evidence for the government to manage the illness more effectively. **METHODS:** The inpatients with discharge diagnosis disease coded with ICD-10 (I60,I61,I62) were extracted from the China Health Insurance Research Association claim database which includes a nationwide, cross-sectional sampling of inpatients from 2010 to 2012.In this paper, the descriptive statistical analysis was used. **RESULTS:** The analysis included 6715 patients(male:63.49%), patients with older than 50 years accounted for 82.87%(n=5565). From 2010 to 2012, the average hospitalization expenses of each visits were 24656.0,23131.4 and 24995.0 yuan(the average hospitalization expenses in the whole country:8849,8852and 9732 yuan).Third-level hospitals, second-level hospitals and under second-level hospitals accounted for 57.85%,34.22% and 9.41%, respectively; total hospitalization expenses accounted for 71.35%, 22.69% and 5.85%; the average hospitalization expenses were 30303.49, 16446.19 and 18624.96 yuan.78.78% of inpatient hospital expenses were occupied by patients who were over 50 years old. Reimbursement by urban basic health insurance scheme in 2010, 2011 and 2012 was 66.47%, 70.59% and 65.08%, respectively; while the corresponding patient co-pay burden was 33.53%, 29.41% and 34.92%. **CONCLUSIONS:** The average hospitalization expenses of each visits of hemorrhagic stroke was greater than the national average inpatients costs, although the reimbursement by urban basic health insurance scheme had increase dramatically, but the out-of-pocket spending was still high, especially for the poor.60% of inpatients went to third-level hospital, needing to establish patient grading care system at once, going back to community hospitals after recovery, which may reduce the burden of medical institutions and patients .

PCV115

EVIDENCE REQUIREMENTS FOR FUTURE ANTIARRHYTHMIC TREATMENTS FOR ATRIAL FIBRILLATION (AF)

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OBJECTIVES: To understand why dronedarone failed to unseat amiodarone as the primary antiarrhythmic treatment of choice for persistent AF, thus uncovering the clinical outcome requirements for a future AF therapy to achieve optimal market access. **METHODS:** Review published HTA reports and clinical trial outcomes for dronedarone to assess market access outcomes and associated Payer rationale for decision-making. Interview ten (10) managed care medical directors and AF key opinion leaders (KOLs) in US and thirteen (13) ex-Payers and AF KOLs in Europe (mix of stakeholders encompassing France, Germany, Italy, Spain, and UK) for validation and gap filling. **RESULTS:** Driven by benefits in all efficacy outcomes other than cardiovascular-related hospitalizations, Payers perceive amiodarone as more efficacious than dronedarone. The significant number of deaths during the high-risk PALLAS study crippled the safety image of dronedarone. Finally, a prohibitive price at launch contributed to a multiplicity of negative HTA assessments. In order to succeed where dronedarone failed and qualify as a step function increase over the standard-of-care amiodarone, Payers require at least: 40% reduction in AF recurrence; 30% relative risk reduction in hospitalizations compared to amiodarone; and fewer than 1% deaths as part of the clinical evidence package. Lower rates of bradyarrhythmia, liver toxicity, and no proarrhythmia will drive a favorable regulatory safety evaluation compared to amiodarone. **CONCLUSIONS:** The sub-optimal market access and relatively low utilization of dronedarone resulted primarily from a failure to demonstrate an improvement in recurrence as compared to amiodarone, as well as a significant number of deaths during pivotal trials. Manufacturers considering development of novel antiarrhythmics should strive for equivalent efficacy but superior safety to amiodarone if a 40% reduction in recurrence is not clinically feasible.

PCV116

ASSESSMENT OF PAYER WILLINGESS TO PAY FOR NOVEL HEART FAILURE THERAPIES: INCREMENTAL IMPROVEMENT IN SYMPTOM RELIEF VERSUS DISEASE MODIFYING

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OBJECTIVES: Existing heart failure standard of care (SoC) provides symptom relief with no impact on changing the disease course. This research assessed Payers' perceived value and willingness to pay (WTP) for a novel oral therapy with significant improvement on top of SoC and a cell therapy providing potential disease modifying outcomes and enhanced mortality benefit. **METHODS:** An online survey with 22 US and EU-5 Payers assessing perceptions of current SoC therapies was conducted. A systematic evaluation of heart failure pharmaceutical, biologic and cell based therapies under clinical development was performed from which two hypothetical product profiles were developed: 1) a novel orally administered therapy; and 2) a recombinant cell based treatment via intramyocardial infusion. Profiles were then tested by 30 in-depth interviews with US and EU-5 Payers. **RESULTS:** Payer preference is based on the technology's ability to meet efficacy targets treating the broadest heart failure patient segments. The oral agent was the preferred agent due to the clinical feasibility to develop with a WTP per day of US $8, UK £ 3 and EU €5 based on efficacy: ≥ 28% RRR composite of CV death and HF hospitalizations; ≥ 25% RRR in CV mortality and ≥ 25% RRR in all-cause mortality. The cell based therapy was cited as the most promising by improving symptoms and changing disease course with a WTP per treatment of US $6,500, UK £1,200 and EU €1,000 based on efficacy: improvement of NYHA functional class in ≥ 15% of patients in 1 year and ≥ 15% improvement in heart function. **CONCLUSIONS:** Payers see novel oral therapies as highly feasible and efficient in treating the broadest population and are willing to pay a premium. However, technologies that are disease modifying, reduce hospitalizations, and provide a significant mortality benefit are most desirable notwithstanding the considerable cost of treatment.

PCV117

THE BURDEN OF UNCERTAINTY IN EMERGENCY ROOM: THE CASE OF CHEST PAIN

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OBJECTIVES: Chest pain complaint is a common and difficult condition to diagnose due to the diversity of the underlying conditions that could cause it. The objective of this study is to examine the impact of the uncertainty in diagnosis on resource utilization using chest pain as an example. **METHODS:** Cross-sectional exploration of the National Hospital Ambulatory Medical Care Survey (NHAMCS) for U.S. emergency departments conducted between 2006 and 2010. Patients whom primary reason for visiting the ED was chest pain were classified into two categories based on the physicians' final diagnosis upon discharge: 1) well-defined diagnosis and 2) ill-defined diagnosis(unspecific chest pain(ICD9=786.5X)). Differences between groups in resource utilization which includes the number of procedures, diagnostics and length of visits were examined using bivariate analyses. **RESULTS:** There were 8,662 ER visits, representing more than 33 million ER visits between 2006 and 2010 where the chief complaint was chest pain. More than half of those patients (54%) had an ill-defined diagnosis upon discharge. No difference between the two groups were detected in gender (female = 53%), race (72.8% white, 23.6% black and 3.6% others), education, subsequent hospital admission (30%) and number of procedures (mean=0.7, STD=0.03). Patients with ill-defined diagnosis, however, were more likely to be admitted to observation units (5.8% vs. 1.9%, p<0.001), received more blood tests (p<0.001), diagnostics (p<0.001), imaging procedures (44.1% vs. 33.6%, p<0.001) specifically X-ray (41.8% vs. 31.5%, p<0.001) and also had higher length of visits (269.5 minutes vs. 241.6 minutes, p<0.001). **CONCLUSIONS:** The uncertainty dictated by the nature of chest pain symptom and the wide array of its underlying conditions inflict higher burden on the U.S. healthcare system. Better diagnostic techniques with higher sensitivity and specificity are badly needed to alleviate this issue.

PCV118
IMPACT OF MEDICAID DISCONTINUITY ON HEALTH CARE RESOURCE UTILIZATION AMONG NON-ELDERLY ADULTS WITH CARDIOVASCULAR DISEASE
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OBJECTIVES: Medicaid coverage among non-elderly adults is often characterized by drop-outs and churning – entering and exiting Medicaid – over short durations. Little is known about the impact of such disruptions in Medicaid coverage on health care resources utilization and adherence to cardiovascular and lipid-lowering medications among enrollees with cardiovascular disease (CVD). **METHODS:** This was a retrospective, repeated cross-sectional study design employing data from 2002-2011 Medical Expenditure Panel Survey. Study sample included adults aged 18-64 years diagnosed with ≥1 CVD or associated comorbidity who reported having Medicaid coverage any time during survey year. Individuals with CVD having continuous, full-year Medicaid coverage (N=1,624) were compared to those with <12 months of coverage (N=3,394). Medication adherence was calculated as proportion of days covered by refills of any CVD medication class examined during the reference period, capped at 1, and analyzed using ordinary least squares regression and multivariate logistic regression. Utilization of 5 CVD-specific health care resources – inpatient, emergency (ER), outpatient, and office-based physician visits, and prescription medications – were estimated using zero-inflated negative binomial models controlling for sociodemographic, health status, disease burden, and Medicaid eligibility covariates, and year fixed effects. **RESULTS:** Older age, White race, higher income, intermittent employment, any private insurance were significant predictors of Medicaid discontinuity (P<0.05). Individuals experiencing discontinuity in Medicaid coverage were predicted to have 0.03 more inpatient (P<0.01), 0.03 more ER (P<0.001), and 0.24 less office-based physician visits (P<0.05), and 0.02 more prescription medications (P<0.05), all other things being equal. Medication adherence was not significantly different between the two groups, nor was it a significant predictor in most outcome models. **CONCLUSIONS:** Individuals with CVD having discontinuous Medicaid coverage had higher hospital, and lower primary care utilization than their counterparts with continuous Medicaid coverage. Medicaid programs will greatly benefit from implementing provisions that mitigate coverage instability and associated disruptions in continuity of care.

PCV119
EVALUATING THE OUTCOMES OF A DIABETES TREATMENT MANAGEMENT PROGRAM TARGETING APPROPRIATE ANTI-HYPERTENSIVE TREATMENT FOR ADULTS WITH DIABETES FOR DUAL AND NON-DUAL ELIGIBLE MEDICARE ADVANTAGE BENEFICIARIES
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OBJECTIVES: Diabetic nephropathy is the leading cause of chronic kidney disease in the United States and is associated with increased mortality. A quality measure that contributes to a CMS Star Rating is that patients with hypertension and diabetes receive a renin-angiotensin system (RAS) inhibitor. The objective of this study was to compare the impact of a Diabetes Treatment Management (DTM) Program, aimed to improve the compliance of appropriate RAS inhibitors for diabetic patients, between dual eligible (DE) and non-DE Medicare Advantage beneficiaries. **METHODS:** This was a retrospective study of pharmacy claims data among Medicare Advantage beneficiaries > 18 years of age in 2014. Members with one diabetic medication claim and one anti-hypertensive medication (calcium channel blockers or beta blockers) claim were included. The DTM program alerted the prescribing provider via fax to add a CMS recommended RAS inhibitor, if appropriate. Intervention success was defined when a recommended anti-hypertensive medication (renin angiotensin system antagonist, angiotensin converting enzyme, angiotensin receptor blocker, or direct renin inhibitor) was subsequently filled by the targeted member. Comparisons between groups were performed using the $\chi 2$ test. **RESULTS:** This data represents 1,037,543 non-DE and 195,413 DE Medicare Advantage beneficiaries. A total of 32,154 members were eligible for the DTM program. Of these, 26,896 (84%) were among non-DE and 5,258 (16%) were among DE Medicare beneficiaries. The DTM program was successful in 26% of the overall population. The success rate was 27% (7,177/26,896) among non-DE compared to 23% (1,211/5,258) among DE Medicare beneficiaries receiving the intervention (p<0.0001). **CONCLUSIONS:** The DTM program was more successful in the non-DE than in the DE Medicare Advantage population. However, further research is needed to understand the factors behind the difference in success for these populations.

PCV120
THE IMPACT OF DIFFERENT TYPES OF HEALTH INSURANCE ON THE HOSPITALIZATION SERVICES UTILIZATION OF PATIENTS WITH HEMORRHAGIC STROKE IN CHINA
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OBJECTIVES: The study aimed to compare the direct medical cost difference of hemorrhagic stroke inpatients with different types of health insurance from 2010 to 2012 in China. **METHODS:** A nationwide, cross-sectional sampling of hemorrhagic stroke inpatients with disease code ICD-10 (I60,I61,I62) with basic medical insurance scheme for employees (BMISE) and basic medical insurance scheme for urban residents (BMISUR) was extracted from the China Health Insurance Research Association claim database. A retrospective analysis was adopted. **RESULTS:** The inpatients number of BMISE was 5321,the inpatients number of BMISUR was 1510. The average age was 63.08 and 62.34 years, respectively. Patients with BMISE went to third-level hospitals, second-level hospitals and under second-level hospitals accounted for 57.01%, 33.71% and 9.27%; but for BMISUR, the percentage of distribution was 48.94%, 37.76% and 11.31%. From 2010 to 2012, the average hospitalization expenses of each visit with BMISE was 25575.34, 24219.22 and 26889.57 yuan; For BMISUR, the expenses of each visit was 21211.57, 18999.53 and 19088.96 yuan. Reimbursement by BMISE in 2010, 2011 and 2012 was 71.01%, 74.12% and 68.25%; while the reimbursement by BMISUR was 45.95%, 53.49% and 51.16%. **CONCLUSIONS:** The insurance level difference between two health insurance schemes influences the treatment regimens and benefits received by patients. People prefer to go to third-level hospitals, but people with BMISE has higher proportion than people with BMISUR, about 10%. For the people with BMISUR, the out-of-pocket spending was 50% of total expenses, needing to raise reimbursement rate, setting up differentiated reimbursement for different income level groups. From 2011 to 2012, the reimbursement rate declined slowly, we need to study the cause in the future.

PCV121
THE EXPANSION OF STROKE CENTERS AND THE REDUCTION OF IN-HOSPITAL MORTALITY OF ISCHECHEMIC STROKE PATIENTS IN ALBERTA
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OBJECTIVES: According to Canada, US and European guidelines and the Helsingborg Declaration, all eligible stroke patients should receive care in specialized stroke centers. During the last decade, partly due to the Alberta Provincial Stroke Strategy (APSS), 16 stroke centers were established in Alberta. This study examined the effect of admission to stroke centers on mortality for patients with ischemic stroke, compared with admission to non-stroke centers. **METHODS:** The study population was identified from the Discharge Abstract Database (DAD) from the province of Alberta, Canada. We included stoke patients with most response diagnostic code I63 (ICD10) with a first admission to acute care hospitals between April 1st 2004 and March 31st 2011. Disease specific co-morbidities were adapted from the literature review, including secondary diagnoses in the DAD. We utilized the triage information from National Ambulatory Care Report System (NACRS) as the proxy of disease severity. The average marginal effect of stroke center on the 30-days in-hospital mortality was estimated in a bivariate probit model, using differential distance to hospitals as an instrumental variable to correct potential pre-hospital selection bias, adjusting for age, sex, co-morbidities, and disease severity. **RESULTS:** Among 9152 patients, 6405 (70%) were admitted to stroke centers (n=16) and 2747 (30%) to non-stroke centers. The overall unadjusted 30-day all-cause mortality rate was 9.8% for patients first admitted to stroke centers and 11.1% for patients admitted to non-designated hospitals. Adjusting patient characteristics and other factors, we found first admission to a stroke center was associated with a 6.4% (95%CI: -1.2%, -11.5%) absolute reduction in 30-day all-cause in-hospital mortality compared to non-stroke centers. **CONCLUSIONS:** In an observational study, we provided new evidence to support the role of stroke center on the reduction in mortality in a universal publicly funded health care system.

PCV122
THE IMPACT OF STROKE CENTERS ON THE LENGTH OF STAY AMONG ISCHECHEMIC STROKE PATIENTS IN ALBERTA
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OBJECTIVES: Although previous studies have shown that stroke centers reduce mortality in patients with ischemic stroke, the association between stroke centers and reduction in length of stay (LOS) in hospital has not been demonstrated. We sought to evaluate the impact of stroke centres as designated by the Alberta Provincial Stroke Strategy (APSS) in Alberta on the LOS of acute ischemic stroke patients. **METHODS:** We compared the actual LOS during the first episode of hospitalization for patients with acute ischemic stroke admitted first to designated stroke centers or non-stroke centers between April 1st 2004 and March 31st 2011 using the Alberta Hospital Discharge Abstracts Database. Using propensity score methods, we applied a log linear regression model to estimate the average change in LOS for all ischemic patients and the change for the patients admitted to the stroke centers, adjusting for age, sex, co-morbidities, disease severity, discharge type and being in the alternate level of care. **RESULTS:** Among 9,092 patients, 6,360 (70%) were admitted to stroke centers. The prolonged hospital stay with alternate level of care designation had occurred in 1,572 (17.3%) of patients. The number of patients discharged to home, home with support or other health care facility, or died were 3,767(41.4%) 4,159(45.7%), and 1,166 (12.8%), respectively. The average unadjusted LOS was 21.3 (SD=33.9) days for patients admitted to stroke centers and 24.8 (SD=37.5) days for patients admitted to non-stroke centers. Adjusting for the patient characteristics and other factors, we estimated that the average LOS was reduced by 6.5% (95%CI: -12.3%, -0.6%) for patients first admitted to stroke centers compared with non-stroke centers. **CONCLUSIONS:** The study shows that in patients with acute ischemic stroke, first admission to stroke centers had significantly reduced LOS compared with non-stroke centers in Alberta by about 1.4 days.

PCV123
PHARMACOECONOMICS RESEARCH ON DIABETES AND HYPERTENSION IN INDIA: A STUDY BASED ON PUBMED DATABASE
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