PCV10  
THE EFFECT OF INTERACTIONS BETWEEN CloPIDOGREL AND PROTON PUMP INHIBITORS ON ADVERSE CARDIOVASCULAR OUTCOMES IN COMMERCIALLY INSURED PATIENTS WITH ACUTE CORONARY SYNDROME

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OBJECTIVES: Following a FDA warning in November 2009, significant controversy exists regarding the outcomes of patients co-medicated with clopidogrel and omeprazole after acute coronary syndrome (ACS). This study examined the effect of proton pump inhibitors (PPI) – clopidogrel interactions on subsequent ACS emergency department and inpatient visits. METHODS: This was a retrospective cohort study of administrative claims data for a large nationally dispersed group of commercially insured subjects between 2001 and 2008. Subjects aged > 18 years with a diagnosis of ACS and at least one clopidogrel prescription within 90 days after the diagnosis were included. The clopidogrel plus PPI (C+PPI) group was defined as subjects with a minimum of 7 days overlap between the PPI and clopidogrel prescriptions. Subjects were followed from their first clopidogrel prescription until they experienced a re-hospitalization or ER visit due to ACS, disenrolled or reached the study end. C+PPI group was matched 1:1 with clopidogrel group using propensity scoring methods with calipers. Cox proportional hazards regression was used to estimate the relative risk of an adverse cardiovascular event. RESULTS: Of the 10,101 patients taking clopidogrel, 16.98% (n=1,716) were prescribed a PPI. Propensity matching resulted in 1,697 patient pairs. The mean age was 61.50 years with a mean follow up of 259 days and 69.64% were males. 13.20% (n=224) had an ACS-related re-hospitalization or ER visit in the clopidogrel group versus 16.32% (n=277) in the C+PPI group. Risk of death was not associated with a significantly increased risk of adverse outcomes (HR=1.221, 95% CI, 0.984-1.517) compared to clopidogrel users not co-medicated with a PPI. CONCLUSIONS: Concurrent use of clopidogrel and PPIs trended toward a non-significant increase in risk of adverse cardiovascular outcomes (ACS) post PCI, which suggests caution may be warranted when prescribing a PPI with clopidogrel. Future studies should account for time dependence of exposure.

PCV11  
PNEUMONIA AFTER ACUTE ISCHEMIC STROKE: PREVALENCE, ASSOCIATED FACTORS AND OUTCOMES

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OBJECTIVES: Pneumonia is one of the most frequent medical complications of acute ischemic stroke, often apparent early after stroke onset, and it is associated with a substantial increase in the risk of death after stroke attack. We aimed to identify clinically useful factors associated with pneumonia, and to examine the effect of pneumonia on patient’s functional outcome at discharge and on in-hospital mortality after the attack. METHODS: It is an observational study of post-stroke pneumonia complicated ischemic stroke patients attending a hospital in Malaysia from November 1, 2008 to April 30, 2009. Data included demographic information, risk factors and clinical characteristics. Functional outcome at discharge as measured by the Modified Barthel Index (MBI) and in-hospital mortality were assessed. Poor outcome was defined as MBI < 75. SSPS version 15 was used for data analysis. RESULTS: A total of 256 patients were studied, of which 33 (12.9%) experienced pneumonia. Of these (84%) were consistent with dyspepsia (ulcers, abdominal bloating, abdominal pain, gastroesophageal reflux disease/acid reflux, or heartburn). Compared with patients without pneumonia (n=224), those with pneumonia were younger (mean 62.9 vs. 66.0 years, p=0.001), had a greater proportion of females (54% vs. 45%, p=0.002), and were more likely to report current cigarette smoking (49% vs. 35%, p=0.001). Moreover, 24 (60%) of dead cases were associated with pneumonia, whereas only 7 (50%) were associated with dyspepsia. CONCLUSIONS: Pneumonia is independently associated with ischemic stroke post-stroke outcome. Identification of medical history and clinical characteristics on admission can assist clinicians to identify patients at higher risk of developing post-stroke pneumonia thus hastening the initiation of certain interventions to improve patient outcome.

PCV12  
IMPACT OF POTENTIAL DRUG-DRUG INTERACTIONS (DDIs) ON HEALTH OUTCOMES AND COST TO MEDICARE: THE MONETARY BENEFITS OF QUALITY HEALTH CARE

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OBJECTIVES: To examine the impact of potential DDIs on health outcomes and the associated cost to the Mississippi Medicaid program. METHODS: A retrospective matched cohort study was conducted in Mississippi Medicaid enrollees for years 2002-2004. Enrollees were classified as exposed to a potential DDI if the object and precipitant drugs were possessed concomitantly, with first day of overlap being the DDI event date. Exposed enrollees were matched to enrollees taking object drugs without a potential DDI based on demographic, comorbidity and object drug-related characteristics. Mortality and hospitalizations were assigned the matched exposed case. Conditional logistic regression was used to analyze the effect on health outcomes (hospitalizations and ER visits within 30 days of potential DDI) and paired t-tests for costs to Mississippi Medicaid. RESULTS: DDIs with the greatest health and economic impact were interactions of ACE/ARB co-medication for patients with hypertension (OR = 1.75, OR for ER visits = 1.39, difference in average per patient hospital payments ($AAPHP) = $124, and difference in average per patient ER payments ($AAPERP) = $63); beta blockers — OR for hospitalizations = 1.52, OR for ER visits = 1.24 (n.s.), $AAPHP = $78.13, and $AAPERP = $43.67, clonidine — OR for hospitalizations = 1.67, OR for ER visits = 1.35, $AAPHP = $50, $AAPERP = $8.17, warfarin with quinolone — OR for hospitalizations = 1.17 (n.s.), OR for ER visits = 1.27, $AAPHP = $83.35, and $AAPERP = $48.14; warfarin with thyroid hormones — OR for hospitalizations = 2.47, OR for ER visits = 1.96, $AAPHP = $106.03, and $AAPERP = $100.33. CONCLUSIONS: Based on the findings, pharmacists should recommend strategies to reduce the incidence of potential DDIs should be a cost-effective method for improving health care quality and thus a priority for state Medicaid programs.

PCV13  
BURDEN OF COMORBIDITIES AMONG PATIENTS WITH ATRIAL FIBRILLATION

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OBJECTIVES: Atrial fibrillation (AF) may manifest with comorbidities. We examined the prevalence of comorbidities and general medication use among AF patients in order to assess total disease burden. METHODS: Data were obtained from the 2009 National Health and Wellness Survey (N=75,000), an annual cross-sectional Internet-based survey of adults in the United States. In addition to demographics and medication use, patients with AF also reported on their comorbid conditions. Using demographic and patient characteristics, a CHADS2 score (an index of stroke risk) was calculated for each patient. RESULTS: A total of 1297 patients reported a diagnosis of AF. The mean age was 64.9 years (SD 12.2), and 63% were male. In addition to AF, these patients reported comorbidities in various organ systems, including 90% with a cardiovascular condition, 63% with a pulmonary condition, 42% with a respiratory condition, and 41% with a gastrointestinal condition. Specific comorbid conditions reported in this AF population included hypertension in 72% of patients, history of myocardial infarction in 21% of patients, and gastrointestinal conditions such as ulcers, bloating, acid reflux disease, heartburn, and diarrhea/hemorrhoids in 29% of patients. The mean Charlson Comorbidity Index score was 1.53 for all patients. Almost half of patients (46%) had a CHADS2 score of ≥ 2. The percentage of patients reporting current medication use included: 71% for AF, 64% for hypertension, 50% for hypothyroidism, 29% for arthritis, 26% for anti-hypertensives, 26% for diabetes, and 26% for gastrointestinal medications. Overall, 43% of patients with AF were using an anticoagulant medication. CONCLUSIONS: This self-reported national survey identified AF patients as having a high comorbidity burden, with conditions affecting a variety of organ systems. Medications used to treat a variety of conditions are also highly prevalent and should be taken into account in managing patients with AF.

PCV14  
DIAPYPSIA AND DISEASE BURDEN AMONG PATIENTS WITH ATRIAL FIBRILLATION (AF)

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OBJECTIVES: Many agents used in treating AF have potential gastrointestinal (GI) tolerability issues. Treatment-related adverse GI events are a common reason for noncompliance to treatment. The current analysis describes the prevalence of diaphpsia in relation to anticoagulant use among AF patients. METHODS: Data were obtained from the 2009 National Health and Wellness Survey (N=75,000), an annual cross-sectional Internet-based survey of adults in the United States. In these findings, Medicaid intervention strategies to reduce the incidence of potential DDIs should be a cost-effective method for improving health care quality and thus a priority for state Medicaid programs.

INHIBITORS ON ADVERSE CARDIOVASCULAR OUTCOMES IN COMMERCIALLY INSURED SUBJECTS

A34  
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PCV16
MANAGING GROWING POPULATION OF TYPE 2 DIABETES FROM COMMUNITY TO TEACHING HOSPITALS IN CHINA
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OBJECTIVES: Diabetes prevalence has grown rapidly in China. As the largest epidemiology and clinical outcomes assessment program, China Cardiometabolic Registries (CCMR), has been designed to establish systematic evaluation on disease progression and influencing factors. The Nationwide Development of-CMR Factors: Blood Pressure, Blood Lipid, and Blood Glucose, in Chinese Patients with type 2 Diabetes (T2D) (CCMR-3B) was one of the CCMR studies and was conducted to assess the clinical outcomes of current treatment patterns. METHODS: This was a cross-sectional study. Patients were recruited from four hospitals (tier 1, regional tier 2, and teaching hospitals tier 3) from all 6 major geographic regions in China, by cardiologists, nephrologists and endocrinologist, and internal medicine. RESULTS: A total of 5099 T2D patients was included for this analysis. Across all hospitals, 55% and 34% of the patients had hypertension (HTN) or dyslipidemia (DYL), respectively, while 33% had neither. No difference was found between hospitals regarding the proportion of patients reaching target control (HbA1c<7%, BP<130/80 mmHg, LDL<2.6 mmol/L) in those who also have HTN or DYL (ranging from 4.4% to 6.6% for the HTN group and 6.9% to8.0% for the DYLP group). However, a trend toward a better HbA1c control in patients without HTN or DYL (ranging from 4.4 % to 6.6% for the HTN group and 6.9% to8.0% for the DYLP group) was observed in those who also have HTN or DYL. CONCLUSIONS: Better Hba1c control seen in larger hospitals was associated with more aggressive use of anti-diabetic treatment. The control of cardiovascular risk factors, blood glucose, blood pressure, and blood lipid, in diabetes patients with HTN or DYL remains to be challenging in all hospital settings.

PCV17
PREDICTORS OF TIME TO DISCONTINUE BETA-BLOCKER FOLLOWING ACUTE MYOCARDIAL INFARCTION: AN ANALYSIS OF THE MEDICARE 5% NATIONAL SAMPLE DATA 2006-2007
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OBJECTIVES: To study the predictors of beta-blocker therapy discontinuation among post myocardial infarction (MI) patients enrolled in Medicare. METHODS: This is a retrospective cohort study utilizing a Medicare 5% national sample claims data for 2006-2007. Medicare beneficiaries with continuous Part A, B, and D enrollment in 2006-2007 and who were hospitalized for an acute MI in the first six months of 2006 were identified using a validated algorithm, requiring a hospitalization episode ≥3 days ≥180 days with an ICD-9-CM of 410.x1 as principal or secondary diagnosis. Post-MI patients with a filled prescription for beta-blocker within 90 days of discharge were followed until the end of the study period. Time to discontinuation was defined as days from initiation of therapy to a gap of ≥90 days in the dispensing of the beta-blocker. Kaplan-Meier techniques were used to determine the potential predictors of therapy discontinuation, including demographic characteristics, comorbid conditions and concomitant medications were estimated using Cox proportional hazards regression. RESULTS: Of the 2,505 subjects who met our inclusion criteria, 65.1% were females, 83.3% were Caucasians, mean age 76.6 (±8.2) years. About 15% of them discontinued therapy within six months and around 35% discontinued within a year. Males were more likely to discontinue therapy as compared to females (HR=1.166, [1.020-1.334], p=0.0245) and Caucasians (HR=0.674, [0.555-0.815], p<0.001) were less likely to receive therapy compared to African Americans. The results of Cox proportional hazards regression is shown in the table. Conclusion: Better beta-blocker control seen in larger hospitals was associated with more aggressive use of anti-diabetic treatment. The control of cardiovascular risk factors, blood glucose, blood pressure, and blood lipid, in diabetes patients with HTN or DYL remains to be challenging in all hospital settings.

PCV18
MEDICATION ADHERENCE AND HOSPITALIZATION AMONG CHRONIC HEART FAILURE MEDICARE BENEFICIARIES WITH AND WITHOUT DEPRESSION
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OBJECTIVES: Adherence to chronic heart failure (CHF) medications decreases preven- tion of hospitalizations. Nonetheless, CHF rarely occurs without concomitant conditions. We sought to: 1) evaluate impact of comorbid depression on CHF medica- tion use and adherence among Medicare beneficiaries with CHF (CHF_MED_BEN); 2) examine relationships between CHF medication adherence and out- comes; and 3) determine if depression modifies this relationship. METHODS: We employed a cross-sectional design of 2006-2007 CMS Medicare Chronic Condition Warehouse (CCW) database. Sample was restricted to CHF_MED_BEN with Medi- care A and B and D to observe all prescription and medical claims. We classified indi- viduals with CHF and depression if they met the CCW definitions. Adherence mea- sures included any use (binary) and medication possession ratio (MPR) for evidence-based CHF medications (EBM). Multivariable analyses included an interaction term to test effect modification of the relationship on depression between EBM adherence and number of hospitalizations. Relative rates of hospitalization are reported with 95%CI. RESULTS: A total of 151,934 CHF_MED_BEN met inclusion criteria. Mean age was 75.9±12.0 years; 68% were female. 25% had depression and they were significantly younger (74.5 vs. 76.3 years, p<0.001) and more likely to be female (75% vs. 66%, p<0.001) compared to non-depressed CHF_MED_BEN. A significa- nt inverse association in proportion of non-CHF_MED_BEN CHF (EBM 75% vs. 79%, p<0.001), compared to non-depressed CHF MED_BEN. Median MPR was 0.92 in both groups. A higher proportion of depressed CHF_MED_BEN was hospitalized (76% vs. 63%, p<0.001) and re-hospitalized (40.5% vs. 38.6%, p<0.001) compared to non-depressed CHF_MED_BEN. In multivariable models, depression modified the effect of adherence on hospitalizations (interaction term p<0.001): compared to high adherence (MPR>0.9), poor adherence (MPR<0.5) was associated with a 24% (95%CI 1.20-1.28) increased hospitalization rate among non-depressed CHF_MED_BEN and a 45% (95%CI 1.37-1.54) increased hospitalization rate among depressed CHF_MED_BEN. CONCLUSIONS: Depression was not associated with poor EBM ad- herence among CHF_MED_BEN. Poor EBM adherence was associated with in- creased hospitalization in both depressed and non-depressed groups, with a greater effect among depressed CHF_MED_BEN.

PCV19
A BAYESIAN MULTIPLE TREATMENT COMPARISON OF PULMONARY ARTERIAL HYPERTENSION (PAH) DRUG CLASSES BASED ON THE RISK OF MORTALITY - REPORTED IN CLINICAL TRIALS
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OBJECTIVES: To compare the performance of pulmonary arterial hypertension (PAH) drug classes based on the risk of mortality reported in clinical trials, and infer a revised PAH treatment algorithm. METHODS: The study used Bayesian Analysis Using Gibbs Sampling in Windows (WinBUGS) and Monte Carlo Simula- tions to conduct a multiple treatment comparison of placebo and three PAH drug classes, prostanooids, endothelin-receptor antagonists and phosphodiesterase (sildenafil). Direct and indirect pairwise odds ratios (OR) were obtained. Published PAH studies through 2011 were identified using MEDLINE (Pubmed) database and an extended manual search was also conducted based on references from identified studies. Inclusion was restricted to randomized controlled trials lasting at least 12 weeks and at most 16 weeks, with subjects having either idiopathic or associated PAH, and studies that reported mortality as an endpoint. Studies that compared combi- nations of drugs were excluded from the analysis. Results are reported in OR with 95% credible intervals. RESULTS: In total 8 studies (20 treatment arms, 2,015 sub- jects) enrolled were included in the analysis. 2 studies were 3-arm trials and 1 was a 4-arm trial. With placebo as the reference class, the OR of mortality was 1.00 (0.65, 2.00) for prostanooids, 1.14 (0.15, 6.49) for endothelin-receptor antagonists and 0.62 (0.05, 2.83) for phosphodiesterase. Using prostanooids as the reference class, the OR of mortality was 4.28 (0.10, 23.10) for endothelin-receptor antagonists and 2.40 (0.04, 12.66) for phosphodiesterase. Using endothelin-receptor antagonists as the reference class, the OR of mortality was 4.28 (0.10, 23.10) for endothelin-receptor antagonists and 2.40 (0.04, 12.66) for phosphodiesterase. None of the ORs were statistically significant. CONCLUSIONS: Based on the risk of mortality reported in clinical trials, there is no statistically significant difference among PAH drug classes. Including more studies/drugs and the use of different PAH outcomes could inform a more detailed comparison.

PCV20
INTERVENTION WITH STATINS AND PRIMARY PREVENTION OF CARDIOVASCULAR EVENTS: A POPULATION-BASED STUDY
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OBJECTIVES: To evaluate the association between persistent use of statins and the risk of acute cardiovascular events among primary prevention patients in community settings. METHODS: A population-based retrospective cohort among 171,846 adults aged 45-75, with no history of any cardiovascular disease, who began statin therapy between to 1999. Proportion of days covered (PDC) with statin was measured by the number of dispensed prescriptions during follow-up period. Study endpoint was occurrence of a major cardiovascular event, which comprised myocardial infarction or performance of a cardiac revascularization procedure RESULTS: The fully adjusted survival analysis indicated a significant negative as-