SIONS: While women were less costly to treat, this difference was not attributable to medication efficacy or observable patient characteristics. Medication compliance may be a factor and merits further investigation.

PCV20

RATES OF HYPERTENSION-RELATED MEDICAL AND PRESCRIPTION UTILIZATION AND COSTS IN A STATE MEDICAID POPULATION

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Hypertension, a major risk factor for cardiovascular diseases such as stroke and myocardial infarction, affects approximately 50 million adults in the United States. OBJECTIVES: To assess utilization and costs for hypertension-related medical services and pharmacotherapy among recipients in a state Medicaid population. METHODS: Medical services claims with a primary ICD-9 CM diagnosis code for hypertension (401.xx) during calendar year 2002, for recipients between 15 and 64 years of age were extracted. Unique recipient identifiers obtained from these claims were then used to extract hypertension-related prescription claims. Medicaid reimbursements were used to calculate costs for outpatient, ED and prescription use; Medicare DRG average reimbursement amounts were used to calculate hospital costs. RESULTS: Overall hypertension prevalence was 10.7% among Medicaid recipients. Of the 17,610 recipients identified, 25% received single antihypertensive drug therapy, 60% received two or more antihypertensive drugs and 15% had no prescription claims for antihypertensive drugs. Of those recipients receiving single drug therapy (n = 4,478), 30% received angiotensin converting enzyme inhibitors, 22% received beta blockers, 18% received calcium channel blockers, 15% received diuretics, 10% received angiotensin receptor blockers, and 5% received other classes of drugs such as alpha blockers, centrally acting alpha; agonists, and vasodilators. The rates of hospitalization, ED and outpatient visits were 5/10,000 recipients, 43/10,000 recipients, and 173/1000 recipients, respectively. The mean cost per hospitalization, ED and outpatient visit was $2422 (SD = $211), $58 (SD = $61), respectively. Total hypertension-related expenditures to Medicaid were: $193,776 for hospitalizations, $133,779 for ED use, $2,296,746 for outpatient use accounting for most medical visits and prescription drug use. CONCLUSIONS: A significant number of subjects receiving antihypertensive medications were responsible for a substantial economic burden to Medicaid with hypertension-related expenditures to Medicaid were: $193,776 for hospitalization, $133,779 for ED use, $2,296,746 for outpatient use accounting for most medical visits and prescription drug use. This difference was not attributable to medication efficacy or observable patient characteristics. Medication compliance may be a factor and merits further investigation.

PCV22

COST AND COMORBIDITIES ASSOCIATED WITH ATRIAL FIBRILLATION IN DIFFERENT AGE GROUPS

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OBJECTIVES: To assess direct (medical and drug) annual costs and associated comorbidities of atrial fibrillation (Afib) in different patient age groups. METHODS: The study sample was identified from an employer claims database including medical, drug, and disability claims for approximately 2 million enrollees over the period 1999–2002. Patients with at least two Afib diagnoses were included in the sample (n = 17,781). A non-Afib control sample was randomly selected with a 1:1 ratio, with patient characteristics (i.e., age, gender, region of residence) matched to the Afib sample. All patients were used in comorbidities analyses, while only those patients under age 65 (n = 3952) were used in cost analyses. Patients were stratified in two age groups (<45, 45–64). To assess excess annual cost and comorbidities, we compared Afib patients to control patients. Cost analyses were conducted from a third party payer's perspective. All costs were adjusted to 2002 dollars using CPI. Statistical significance was measured by T-tests for cost comparisons, or Chi-square tests for comorbidities comparisons. RESULTS: The average excess annual medical cost of an Afib patient was $12056 (P < 0.01). For patients in the older (45–64) and younger (<45) age groups, the excess annual medical costs of Afib were $12,280 (P < 0.01) and $9969 (P < 0.01), respectively. The difference between the excess costs for the two age groups was not significant. The most expensive cost component of Afib was inpatient hospitalization. Afib was associated with increased risk of atrial flutter (Relative Risk (RR) = 140, P < 0.01), other arrhythmias/conduction disorders (RR = 7, P < 0.01), heart failure (RR = 8, P < 0.01), stroke (RR = 4, P < 0.01), heart attack (RR = 4, P < 0.01), depressive disorders (RR = 2, P < 0.01), and generalized anxiety disorder (RR = 2, P < 0.01). CONCLUSIONS: The study found that Afib is a costly disease associated with high risk of heart attack, heart failure, stroke, arrhythmias, depression, and generalized anxiety disorder. There is no significant cost difference across age groups.

PCV21

PREVALENCE AND COST IMPLICATIONS OF POTENTIAL INTERACTIONS WITH STATIN MEDICATIONS IN A MANAGED CARE POPULATION

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OBJECTIVES: To determine the rate in which patients treated with statins received a concomitant potentially interacting medication (PIM) and the cost associated with receiving a PIM. METHODS: New users of atorvastatin, pravastatin or simvastatin during the time period 01.01.00–12.31.01 were selected from a claims database for a large U.S. health plan. Adult subjects were included if they had 24 months of continuous eligibility surrounding their first study medication claim, and had no evidence of switching to another statin in the 12-month follow-up period. To control for potential selection bias and confounding by indication, two propensity score matching processes were used. The first matched subjects based on statin therapy and the second matched subjects based on receipt of a PIM. Subjects were followed for 12 months to measure total pharmacy and medical utilization and cost. Logistic regression was used to determine the risk of receiving a PIM and log-linear ordinary least-squares regression was used to determine the cost difference. RESULTS: A total 48,958 subjects met the inclusion/exclusion criteria. Of the 23,594 subjects who were matched on statin therapy propensity scores, 30% of atorvastatin, 3% of pravastatin and 32% of simvastatin subjects received a PIM in the follow-up period. Relative to pravastatin, the odds ratios for receiving a PIM (and 95%CI) were 15.3 (13.3–17.6) for atorvastatin and 16.3 (14.1–18.8) for simvastatin. 13,916 subjects were matched on receipt of a PIM. Subjects receiving a PIM had 52% (p < 0.0001) greater medical and 50% (p < 0.0001) greater pharmacy cost in the follow-up period than those that did not. CONCLUSIONS: A significant number of subjects receiving atorvastatin or simvastatin also received a concomitant potentially interacting medication. Subjects receiving PIMs were of significantly greater cost to the health care system. Opportunity exists to educate providers and decision-makers regarding the prevalence and impact of potential statin medication interactions.