

In The Netherlands, many patients are being switched from atorvastatin to generic simvastatin at inferior doses, which might lead to a significant increase in future cardiovascular events.

PCV127

#### CARDIOVASCULAR DRUGS USAGE IN CROATIA AND SLOVENIA DURING THE NINE-YEAR PERIOD

Vitezic D<sup>1</sup>, Kucan M<sup>2</sup>, Vitezic M<sup>3</sup>, Kovacevic M<sup>1</sup>, Mrcic Pelcic J<sup>4</sup>

<sup>1</sup>University of Rijeka Medical School and University Hospital Centre Rijeka, Rijeka, Croatia,

<sup>2</sup>JADRAN Galenski laboratorij, Rijeka, Croatia, <sup>3</sup>University of Rijeka Medical School and

Orthopedic Hospital Lovran, Lovran, Croatia, <sup>4</sup>University of Rijeka, Rijeka, Croatia

**OBJECTIVES:** The objective of this study is the analysis of cardiovascular drugs consumption (C group) in two mid European countries, Croatia and Slovenia, for the 9-year period (from 2000 to 2008). Further, the aim was to identify the generic drugs usage in each country, the price for DDD for original and generic drugs, and to identify the most prescribed drugs in C group. **METHODS:** The data on the consumption have been obtained from the International Medical Statistics database for Croatia and Slovenia. Drugs usage is presented in defined daily doses per 1000 inhabitants per day (DDD/1000) according to the World Health Organization Collaborating Centre for Drugs Statistics Methodology. Financial expenditure data are presented in Euros. An average cost per DDD was calculated for each drug group. **RESULTS:** The total usage of cardiovascular drugs is higher in Slovenia, but the prescribed generic drugs usage is higher in Croatia during the investigated period i.e. in Croatia 65.07% of all prescribed drugs from C group were generics in 2008., while in Slovenia it was 55.05%. The average price per 1 DDD, for both original and generic drugs in C group, was lower in Croatia. The cardiovascular drugs usage, according to C subgroups shows a higher prescription rate in Croatia for C01 (Cardiac therapy), C02 (Antihypertensives) and C09 (Agents acting on the renin-angiotensin system), while in Slovenia there is a higher consumption in C08 (Calcium channel blockers) and C10 (Lipid modifying agents). **CONCLUSIONS:** Comparing the cardiovascular drugs prices in both countries, there is a possibility for price reduction in Slovenia. Drugs prescription patterns are different in Croatia and Slovenia. This indicates the need for a more thorough analysis and the introduction of national drugs guidelines for rational prescribing, monitoring and evaluation. Although the generic drugs usage in C group is relatively high, it should be further supported and promoted.

PCV128

#### RELATIONSHIPS BETWEEN PHYSICAL INACTIVITY AND HEALTH CARE EXPENDITURE AND RESOURCE USE IN PATIENTS WITH PRIMARY HYPERTENSION

Lee C<sup>1</sup>, Skrepnek G<sup>2</sup>, MacDonald K<sup>3</sup>, Abraham I<sup>4</sup>

<sup>1</sup>University of Arizona College of Pharmacy Center for Health Outcomes and

Pharmacoeconomic Research/ Matrix45 LLC, Philadelphia, PA, USA, <sup>2</sup>University of Arizona

College of Pharmacy Center for Health Outcomes and Pharmacoeconomic Research,

Tucson, AZ, USA, <sup>3</sup>Matrix45 LLC, Earlysville, VA, USA, <sup>4</sup>University of Arizona College of

Pharmacy Center for Health Outcomes and Pharmacoeconomic Research/ Matrix45 LLC,

Earlysville, VA, USA

**OBJECTIVES:** Regular physical activity is a critical guideline-recommended component of disease management in all patients with hypertension. We examined the associations of health care expenditure and resource use with physical inactivity in this population. **METHODS:** We used a nationally-representative sample from the 2006 Agency for Health care Research and Quality Medical Expenditure Panel Survey (MEPS) for this retrospective study of adults (18 years or older) with a diagnosis of primary hypertension (ICD-9:401.x). Generalized linear modeling was used to assess all-cause total and out-of-pocket health care expenses and the odds of emergency room visits and hospitalizations using gamma and binomial families, respectively, as a function of physical inactivity (self-report of not spending  $\geq 30$  minutes in moderate physical activity  $\geq 3$  times per week). National population estimates were adjusted for demographics (age, gender, race, education, marital-status, income, region), payer (% coverage by public and/or private insurance), comorbidity severity (Deyo-Charlson index), complicating conditions (depression, diabetes, myocardial infarction, cerebrovascular accidents, heart failure, peripheral vascular disease), and antihypertensive treatment (classes). **RESULTS:** (reported as weighted estimates  $\pm$  standard errors) Mean age (n = 46,884,259) was 60.8  $\pm$  0.3 years; 23.4  $\pm$  0.7% of patients had diabetes, and 13.9  $\pm$  0.5% had depression. Some 52.8  $\pm$  0.9% of patients reported being physically inactive. On average, patients had \$8468  $\pm$  257 in total, and \$1453  $\pm$  47 in out-of-pocket health care expenses in 2006 with 19.4  $\pm$  0.6% having an emergency room visit and 16.0  $\pm$  0.6% being hospitalized. Physical inactivity was associated with 26.0  $\pm$  6.7% greater total and 18.5  $\pm$  5.4% greater out-of-pocket health care expenses (both p < 0.00001). Physical inactivity also was associated with a 23.9  $\pm$  12.4% increase in the odds of an emergency room visit (p = 0.032) and a 38.4  $\pm$  15.2% increase in the odds of a hospitalization (p = .003). **CONCLUSIONS:** We found strong associations between physical inactivity and greater health care expenditures and health care resource use in patients with hypertension. Further research is warranted to identify amenable barriers to physical activity in this population.

PCV129

#### INCREMENTAL HEALTH CARE EXPENDITURE AND RESOURCE UTILIZATION DUE TO CARDIOVASCULAR DISEASE AMONG PATIENTS WITH CHRONIC OBSTRUCTIVE DISORDER IN THE HOSPITAL SETTING

Rane PB, Halverson J

West Virginia University, Morgantown, WV, USA

**OBJECTIVES:** To estimate incremental health care expenditure associated with comorbid cardiovascular disease (CVD) among patients with chronic obstructive pulmonary disease (COPD) in the hospital setting. **METHODS:** Retrospective data derived from the 2007 National Inpatient Sample (NIS) of the Healthcare Cost Utilization Project (HCUP) was analyzed. Hospital inpatient discharge records for patients with a primary diagnosis of COPD and who were  $\geq 40$  years of age; were extracted to form the study sample. The sample was then categorized into two groups based on whether there was a secondary diagnosis of CVD. Incremental health care expenditure due to comorbid CVD was then determined by comparing hospital charges among the two groups. In addition to hospital charges, national estimates of hospital length of stay (LOS) and in-hospital mortality were also examined and compared between the two groups. For patients with COPD and comorbid CVD, the outcomes were compared across the different CVDs (hypertension, heart failure, ischemic heart disease, pulmonary heart disease, cerebrovascular disease, and cardiomyopathy and dysrhythmia). **RESULTS:** Of the 114,812 COPD-related hospital discharges in 2007; 78.23% (n = 89,822) had CVD listed as a secondary diagnosis. Mean hospital charges were \$15,691 (95% CI \$14,943 \$16,439) for patients with COPD and no comorbid CVD, and were \$23,986 (95% CI \$23,012.59 \$24,959.22) for patients with COPD and CVD. Among COPD patients with comorbid CVD, the mean charges were highest for those with cardiomyopathy and dysrhythmia, at \$25,359 (95% CI \$24,052.96 \$26,664.45). The mean LOS was also higher among COPD patients with comorbid CVD as compared to those without comorbid CVD (4.59 days vs. 4.16 days). The mean LOS was also longest for patients with cardiomyopathy and dysrhythmia at 5.75 days. **CONCLUSIONS:** Health care expenditure due to comorbid CVD is substantial among hospitalized patients with COPD.

PCV130

#### EVALUATION ON THE DRUGS AND MEDICAL COST OF PATIENTS WITH HYPERTENSION IN CHINA

Xiong X<sup>1</sup>, Yao L<sup>2</sup>, Yan X<sup>1</sup>

<sup>1</sup>China Health Insurance Research Association, Beijing, China, <sup>2</sup>Tongji Medical School of

Huazhong University of Science and Technology, Wuhan, China

**OBJECTIVES:** To understand community-based treatment in hypertension patients status, care-seeking behavior, medical care, cost burden, and analyze impact factors of their behavior and self-prevention and control effect, China Health Insurance Research Association developed a research on evaluation on drugs and medical cost of hypertension patients in China, and reduce the cost burden of those patients. **METHODS:** This study collected 1788 valid samples as well as structured questionnaire survey in 3 cities from retrospective study. A more comprehensive medical management and settlement model has provided through an integrated qualitative and quantitative data analysis. The data was analyzed by Spss12.0, discriminant analysis; Chi-square test, one-way MANOVA, and multivariate linear regression analysis. **RESULTS:** 1)80% outpatients' cumulative frequency of patients with hypertension concentrates upon about 110 medicines and the spending in these 110 drugs cumulated 75% of all Western medicine fees. The average cost of outpatients in western medicine was RMB 69.4 Yuan; Insurers spent about 97.2% of their premium revenues on patient medicine cost. 2)80% inpatients' cumulative frequency of patients with hypertension concentrates upon about 100 medicines and the spending in these 100 drugs cumulated 50% of all Western medicine fees. The average cost of inpatients in western medicine was RMB 35.1 Yuan; Insurers spent about 91.3% of their premium on inpatient medicine cost. 3) Statistic analysis outcomes show that course of the disease ( $x_1$ ), the type of high blood pressure ( $x_2$ ), the numbers of complications ( $x_3$ ) and the types of Standard management ( $x_4$ ) have significant influence on the total hypertension treatment fees. By multivariate linear regression analysis, a safe regression mode was reached as follows:  $y = 3936.51 + 1294.309 * X_3 - 1239.323 * X_4$ . **CONCLUSIONS:** The categories of drugs administered by hypertension patients concentrate in large cities, the spending in drugs was lower and the proportion of claims was high. The standard based on community health centers can lower the cost of hypertension treatment.

PCV131

#### PREDICTORS OF COMPUTED TOMOGRAPHY USE FOR CORONARY ARTERY DISEASE PATIENTS IN EMERGENCY DEPARTMENTS IN THE UNITED STATES

Rao S<sup>1</sup>, Amatyia A<sup>1</sup>, Patel P<sup>2</sup>

<sup>1</sup>University of Illinois at Chicago, Chicago, IL, USA, <sup>2</sup>GE Healthcare, Barrington, IL, USA

**OBJECTIVES:** Computed Tomography (CT) is widely used as a diagnostic tool for medical conditions of the head, chest, cardiac, pulmonary and abdominal system. The objective of this retrospective study was to identify predictors of CT scan use in emergency department (ED) of hospitals in the United States amongst patients suffering from Coronary Artery Disease (CAD). **METHODS:** ED component of National Hospital Ambulatory Medical Care Survey (NHAMCS) for years 2005 and 2006 was used for the analysis. Patients were identified based on chief complaint, physician diagnosis and discharge diagnosis for CAD by ICD 9 codes or reason for visit codes. The binary outcome variable was use of CT scan. Independent variables were selected based on available literature on utilization of health services and general demograph-