

**OBJECTIVES:** To evaluate the level of compliance with antihypertensive medication among Greek hypertensive patients. Furthermore, to investigate the possible association between non-compliance and patient profile as well as specific drug categories. **METHODS:** A total of 2700 hypertensive patients participated and 2662 were analyzed in the study. The duration of the study was 9 months. Information was collected on different antihypertensive drug categories along with epidemiological data. Morisky scale was used in order to measure compliance. **RESULTS:** A total of 57.5% of the responders were male (1530 patients) and 1130 were female. Average age of responders was 63 years and average duration of hypertension was 8.6 years. 63.1% of the study population was found to be compliant with their antihypertensive treatment (regardless of the type of antihypertensive treatment the patient was receiving). From the Morisky scale, 36.2% of patients answered that they sometimes forget to take their medication, 44.9% said that they were sometimes careless when it comes to taking their medicine, 26.9% that when they feel better they forget to take their medicine and 18.4% of the study population answered that when they feel worse, they relate this to their medication and discontinue taking it. The factors found to influence compliance were the level of education, the occupational status and the financial status of the patient as well as the existence of conforming diseases such as dyslipidemia and diabetes. **CONCLUSIONS:** About four out of ten hypertensive patients fail to comply with their prescribed treatment, increasing the possibility of poor control of their condition. This may be an important obstacle in the assessment of the efficacy of any pharmaceutical therapy and may influence the overall health levels of the patients, since poorly controlled blood pressure may lead to the development of more serious conditions as Congestive Heart Failure and Coronary Heart Disease.

## PCV83

## ADHERENCE TO ANTIHYPERTENSIVE AGENTS AFTER A RECENT ISCHEMIC STROKE AND RISK OF CARDIOVASCULAR OUTCOMES : A POPULATION BASED STUDY

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**OBJECTIVES:** Antihypertensive agents have been shown to reduce the risk of major cardiovascular events. However, there are no large effectiveness studies which have assessed adherence to antihypertensive medications and major cardiovascular outcomes in high risk individuals who have recently suffered an ischemic stroke. To evaluate the relationship between antihypertensive (AH) drug adherence and cardiovascular (CV) outcomes among patients with a recent ischemic stroke and to assess the validity of our approach. **METHODS:** A cohort of 14,227 patients with an ischemic stroke was assembled from individuals 65 years and older who were treated with AH agents from 1999-2007 in the province of Quebec, Canada. A nested case-control design was used to evaluate the occurrence of non-fatal major CV outcomes, and mortality. Each case was matched to 15 controls by age and cohort entry time. Medication possession ratio was used for AH agents adherence level. Adjusted conditional logistic regression models were used to estimate the rate ratio of CV events. The validity of the approach was assessed by evaluating the impact of adherence to CV protective and non-CV protective drugs. **RESULTS:** Mean age was 75 years, 54% were male, 38% had coronary artery disease, 23% had diabetes, 47% dyslipidemia, and 14% atrial fibrillation or flutter. High adherence to AH therapy decreased the risk of non-fatal vascular events compared to lower level (Rate ratio: 0.77 (0.70-0.86)). Male gender and CV disease were risk factors for non-fatal vascular events. We observed a paradoxical relation between adherence to several drugs and mortality risk. **CONCLUSIONS:** Adherence to AH agents is associated with a risk reduction of non-fatal vascular events after a recent ischemic stroke. Overestimation of an all-cause mortality reduction may be related to frailty and comorbidity which may confound the apparent benefits of different drugs.

## PCV84

## MISDIAGNOSIS AND MISTREATMENT OF ACE-INHIBITOR INDUCED COUGH DECREASES THERAPY COMPLIANCE

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**OBJECTIVES:** A common adverse effect of angiotensin-converting enzyme inhibitors (ACEi) is a persistent dry cough. Physicians and pharmacists who fail to recognize dry cough to be ACEi related may prescribe cough suppressants (antitussives), instead of recommended ACEi substitution. The aim of this study was to determine the amount of antitussive treatment of ACEi-induced cough and the influence of this on therapy compliance. **METHODS:** Prescription data from community pharmacies between 2000 and 2012 were retrieved from the IADB.nl database in The Netherlands. A prescription sequence symmetry analysis was used to determine whether antitussive agents were prescribed more often following ACEi initiation than the other way around. Therapy compliance was assessed using the proportion of days covered (PDC) method; patients with a PDC  $\geq 80\%$  were considered compliant. **RESULTS:** A total of 1898 starters of ACEi and antitussives within a half-year time span were included. A significant excess of patients received antitussives after ACEi initiation (1,269 versus 629), yielding a sequence ratio of 2.0 (CI: 1.8–2.2). The estimated proportion of patients with ACEi induced cough receiving antitussives decreased over time: from 20.4% in 2000-2004 to 8.0% in 2008-2012. Therapy compliance in patients receiving antitussives due to ACEi initiation was 52.4%, significantly lower than compliance in control patients, which was 75.2% ( $P < 0.001$ ). **CONCLUSIONS:** Many patients receive cough suppressants after ACEi initiation. This suggests that ACEi induced cough is often either not recognized as being ACEi related or is symptomatically treated. Such prescription behaviour is

ineffective and potentially harmful; it also decreases therapy compliance with ACE inhibitors. The correct identification and management of this adverse drug effect is an important aspect of pharmaceutical care.

## PCV85

## PERSISTENCE OF PATIENTS TREATED HYPERTENSIVE MEDICATION IN PBM WITH DIFFERENT PERCENTAGES OF FINANCIAL SUBSIDY

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**OBJECTIVES:** To evaluate medication persistence in patients hypertensive chronic who have different percentages of financial subsidy in a Program Benefit Management (PBM). **METHODS:** We identified patients from 3 health care providers with different percentages of subsidy to buy a medication using the same service in PBM the first provider subsidizes 100%, the second subsidizes 90% (generic) and 70% (brand) and third subsidizes 40%. We selected patients with age  $\geq 40$  years male and female. The persistence analysis was made in the 12 months that followed from the first acquisition within the using method MPR (Medication Possession Ratio). The drugs was Antagonist of Angiotensin II Receptor (Losartan), Beta-Blocker (Atenolol), Calcium Channel Blocker (Amlodipine) and an inhibitor of angiotensin converting enzyme (Enalapril). **RESULTS:** The persistence obtained with first provider (subsidizes 100%) Amlodipine n=1266 and a persistence of 77.25%, n=1016 Atenolol and a persistence of 44.39%, n=680 and Enalapril a persistence of 90.00% and Losartan n=1157 and a persistence of 81.16% as an overall average of persistence between the four drugs was 73.20%, the second provider (subsidizes 90% for generic drugs and 70% for brand) obtained - Amlodipine n=1948 and a persistence of 78.49%, n=2061 Atenolol and a persistence of 32.07%, n=1265 Enalapril and persistence 84.19% of Losartan and n=2.166 and a persistence of 73.36% as an overall average of persistence between four drugs 67.03% and the third provider (subsidizes 40%), Amlodipine n=1264 and a persistence of 9.34%, n=1471 Atenolol and a persistence of 9.11%, n=941 Enalapril and a persistence of 36.88% and Losartan n=1917 and a persistence of 29.47% as a general average of persistence of the four 21.20% drugs. **CONCLUSIONS:** The average persistence varies statistically significantly with the percentage of subsidy the benefit influencing directly the persistence of these populations, the greater the allowance / benefit was greater at the rate of persistence between them.

## PCV86

## THE BURDEN OF NON-ADHERENT PRESCRIPTION COST CUTTING AMONG DIAGNOSED HYPERTENSION PATIENTS IN RUSSIA

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**OBJECTIVES:** To determine loss of health status, work productivity impairment, and activity impairment associated with non-adherent cost-cutting in Russian hypertension patients. **METHODS:** The study employed data from the 2011 Russia National Health and Wellness Survey (NHWS; n=10,039), a survey of demographics, health-related attitudes and behaviors, and health outcomes. Non-adherent cost-cutting behaviors included taking less medication than prescribed, cutting tablets in half, buying fewer tablets, not buying prescriptions recommended by the physician, buying a less expensive alternative instead, or buying prescriptions less often. Adherent behaviors included asking physician/ pharmacist for cheaper alternatives, or using a discount card. Health status was assessed using the SF-12v2, and work and activity impairment using the Work and Activity Impairment questionnaire (WPAI). Regression models quantified the burden associated with non-adherent cost-cutting on health status and WPAI metrics, controlling for demographics, health history, insurance status, and comorbidities. **RESULTS:** Out of 1,712 diagnosed hypertension patients taking prescription medication for hypertension, 37.5% reported using non-adherent cost-cutting behaviors, 28.2% reported using adherent cost-cutting behaviors only, and 34.3% reported no cost-cutting behaviors. After controlling for covariates, employed patients using non-adherent strategies reported greater absenteeism (9.3% vs. 3.7%,  $p=0.002$ ), presenteeism (29.2% vs. 21.8%,  $p<0.001$ ) and overall work productivity loss (33.8% vs. 24.3%,  $p<0.001$ ) compared with employed patients who do not use those strategies. Among all respondents, non-adherent cost-cutting was associated with lower adjusted health status (MCS: 42.0 vs. 44.4,  $p<0.001$ , PCS: 40.3 vs. 41.3,  $p=0.014$ ) and greater adjusted activity impairment (38.5% vs. 31.2%,  $p<0.001$ ). **CONCLUSIONS:** Over a third of hypertension patients cut costs using strategies that interfere with medication adherence. These patients suffer greater health-related impairments in work and non-work activities and have lower health status. These patients should be identified and guided to improve adherence to their prescription medications to facilitate better health outcomes.

## PCV87

## FACTORS RELATED TO NON-ADHERENCE AND SATISFACTION FOR HYPERTENSION MEDICATIONS: RESULTS FROM A NOVEL PATIENT REGISTRY

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**OBJECTIVES:** Medication non-adherence and treatment satisfaction are significant barriers to achieving treatment outcomes and associated with increased health care costs among patients with hypertension. Using a novel patient registry, we assessed factors associated with satisfaction and non-adherence to hypertension medications. **METHODS:** We analyzed data from MediGuard.org, a free medication monitoring service covering over 2.6 million members in the US, UK, France, Germany, Spain, and Australia. As part of site operations, the service sends a quarterly member survey to solicit feedback on their medications using the Treatment Satisfaction Questionnaire for Medication (TSQM) and Medication Adherence Report