According to these findings, treatment with 160 mg valsartan/25 mg HCTZ totally dominates and it should be preferable. Sensitivity analysis confirmed the results from this base case.

**PCV60**

**COST-MINIMIZATION ANALYSIS OF TREATMENT OF MILD-TO-MODERATE HYPERTENSION IN UNITED STATES**

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**OBJECTIVES:** Hypertension is a highly prevalent risk factor for cardiovascular disease (CVD), which affects approximately 50 million Americans. The outcome data from several clinical trials and meta-analyses prove that new and old classes of antihypertensive drugs provide similar reductions of cardiovascular morbidity and mortality. The purpose of this study was to compare the costs associated with the prescription of first-line antihypertensive agents in United States (US). **METHODS:** A cost-minimization analysis was performed. A decision analysis model was developed to compare the five alternative interventions: chlorthalidone, propranolol, amlodipine, enalapril and losartan. Clinical inputs were derived from randomized controlled trials and cost data from 2004 Red Book and Centers for Medicare & Medicaid Services. The evaluation of the cost of managing mild-to-moderate hypertension includes the cost of drug therapy, monitoring, treating side-effects, poor compliance and switching. All costs were calculated from a health system’s perspective, in 2004 US. Future costs and clinical benefits were discounted at 5%. The time horizon was 5 years. **RESULTS:** The total cost to achieve and maintain hypertension control in US setting was $2194.42, $3181.79, $3566.36, $2885.69 and $3747.57 for chlorthalidone, propranolol, amlodipine, enalapril and losartan respectively. The drug acquisition cost was 27.54%, 51.28%, 58.18%, 47.83%, and 61.35% respectively. Sensitivity analysis tested the effect of modifying the prices of the antihypertensive agents and laboratory monitoring, the doses of the alternative drugs and the compliance rate on the economic endpoints and confirmed the superiority of chlorthalidone. **CONCLUSIONS:** In patients with mild-to-moderate hypertension in US, treatment costs to prevent CVD are much lower with chlorthalidone than with the other first-line antihypertensive agents.

**PCV61**

**THE FRENCH CV@GOAL EDUCATIONAL PROGRAM FOR IMPROVING HBP MANAGEMENT BY PATIENTS AND PHYSICIANS: ASSESSMENT OF ITS IMPACT ON PATIENT’S KNOWLEDGE AND PATIENT-PHYSICIAN RELATIONSHIP**


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Despite therapeutic advances, High Blood Pressure (HBP) remains a health issue in Western countries. Few programs have sought to improve physician-patient relationship and the effect of educating HBP patients. CV@Goal is a French educational programme (2002 to 2003) aimed at training physicians to educate HBP patients. **OBJECTIVES:** Assessing the impact of CV@Goal on HBP patients and physicians. **METHODS:** A 6-month before-after comparison of physician and HBP patient populations. Four HBP patients per GP were included. GPs were trained to educate HBP patients and included four new HBP patients. **RESULTS:** In total, 1208 HBP patients and 308 physicians completed the “before” questionnaire, and after training 512 new patients and 169 physicians completed the “after” questionnaire. According to GPs, there were in both phases “important” or “insurmountable difficulties” concerning patient sedentary lifestyle (40%), diet compliance (60%) and alcohol (75%). The proportion of GPs who considered patient knowledge to be “good” or “very good” increased for: general issues (22% to 38%), the disease natural history (8% to 14%), risks (29% to 49%), complication prevention (13% to 24.5%) and alarm symptoms (21% to 35%); the proportion also increased for patient awareness of the importance of smoking cessation (69% to 77%) and special dieting (52% to 67%). Changes in patients’ blood pressure were not significant. Most patients believed smoking, diabetes, alcohol, hypercholesterolemia, treatment compliance, obesity, age, heredity and diet could alter blood pressure; knew HBP could relate to heart, brain, arteries, eyes, kidneys complications; that smoking cessation, weight loss, physical exercise and salt reduction could improve HBP. After CV@Goal, improvements were observed in patient knowledge about the importance of weight loss, physical exercise and salt consumption. Nevertheless, most patients declare they have not changed lifestyle since the HBP diagnosis. **CONCLUSION:** CV@Goal had an impact on patient knowledge about HBP, but not on lifestyle and BP.

**PCV62**

**LIPID PROFILE IN HYPERTENSIVES WITH AND WITHOUT CARDIOVASCULAR DISEASE: HAS THE HDL COLESTEROL BEEN FORGOTTEN?**

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**OBJECTIVES:** Hypertensive patients with cardiovascular (CV) disease or diabetes are at a particularly high CV risk. LDL-cholesterol (cLDL) levels are an important CV risk factor and total cholesterol/cHDL (TC/HDL) ratio is also related to cardiovascular risk. Although HDL-cholesterol (cHDL) is a protective factor, available therapeutic strategies are not effective enough. The objective of this study is to compare cLDL, cHDL and TC/HDL between two groups: patients with previous CV disease/diabetes and those without it in a hypertensive population from a programme for CV risk control. **METHODS:** A total of 5094 subjects from primary care centres in Spain were retrospectively studied. Levels of cLDL, cHDL and TC/HDL were compared for the above mentioned groups by Student t test for independent samples. **RESULTS:** There were 41.4% men. Mean age 66.3 years. Average TC levels were: 214.4mg/dL; cLDL: 141.9mg/dL; cHDL: 45.5mg/dL and TC/HDL: 4.98. Levels of cLDL were significantly lower for those with CV disease/diabetes: 148.6mg/dL (SD 32.8) vs. 132.3mg/dL (SD 35); p < 0.0001. Similarly, Levels of cHDL were significantly lower for those with CV disease/diabetes: 47.1mg/dL (SD 12.3) vs. 43.1mg/dL (SD 11.4); p < 0.0001. There were no significant differences of CT/HDL ratio between groups. **CONCLUSIONS:** In a population of treated hypertensives, cLDL levels are lower for those with previous CV disease/diabetes, which is appropriate taking into account their higher cardiovascular risk. On the contrary cHDL levels are lower in the group at highest risk. There is a wide room for improvement of cardiovascular risk in hypertensive patients with previous CV disease or diabetes, by increasing HDL.

**PCV63**

**CARDIOVASCULAR DRUG USE IN NIS REGION**

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OBJECTIVE: The aim of this study was to analyze the out-hospital cardiovascular drug utilization in the city of Nis. The prevalence of cardiovascular disease is high in Serbia. Analysis of cardiovascular drugs utilization in a population is the basis for the assessment of cardiovascular pharmacotherapy.

METHODS: Using the ATC/DDD methodology, we analyzed the utilization of cardiovascular drugs dispensed on prescription in Nis region in 2003–2004. A retrospective study on cardiovascular drugs utilization according to ATC classification, was conducted on the basis of data received from Central City Pharmacy Nis. RESULTS: Results were presented in DDD/1000 inhabitants/day. The most frequently prescribed drug in 2003–2004 was Enalapril (32.16: 41.71 DDD/1000 inhabitants/day). Besides, consumption of other ACE inhibitors was small (2.94:6.48 DDD/1000 inhabitants/day). The next most commonly used drugs were selective beta blockers (atenolol-8.48DDD/1000 inhabitants/day; metoprolol 5.85 DDD/1000 inhabitants/day) in 2003. The use of amlodipin had a significant increase in 2004 (10.21 DDD/1000 inhabitants/day; 6.41 DDD/1000 inhabitants/day). Marginal use of diuretics was detected (4.48 DDD/1000 inhabitants/day: 5.19 DDD/1000 inhabitants/day).

CONCLUSION: The present analysis for 2003–2004 pointed to therapeutic irrationalities which could be overcome with education concerning cardiovascular drugs consumption in Nis region (south-east Serbia).

HEALTH CARE UTILIZATION OF ANTIHYPERTENSIVE MEDICATION WITHIN THE SLOVAK REPUBLIC

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OBJECTIVES: To analyse the utilisation of antihypertensive drugs within Slovakia between 2000 and 2004 and to assess the economic consequences of antihypertensive medications.

METHODS: For 2000–2004, the data about consumption of drugs for cardiovascular disease were collected, in accordance with the Anatomic Therapeutic Chemical classification (ATC: C01- C10) and Defined Daily Dose (DDD) measurement unit. This analysis focused on the situation in antihypertensive medication in more detail. Data of wholesalers, who are legally obliged to provide this information to the SUKL, was used for the analysis. RESULTS: A significant increase in the medication of cardiovascular disease (in 2000 (290.27), in 2002 (376.30) and in 2004 (388.06) in term of DDD/1000/day can be seen from this analysis. The results show that the consumption (in term of DDD/1000/day) of β-blockers was (in 2000 (32.04), in 2002 (41.91) and in 2004 (42.78)), ACE inhibitors (in 2000 (57.01), in 2002 (81.86) and in 2004 (88.79)), Ca-blockers (in 2000 (39.72), in 2002 (55.42) and in 2004 (63.25)), diuretics (in 2000 (28.20), in 2002 (32.82) and in 2004 (31.67)), peripheral vasodilators (in 2000 (20.89), in 2002 (22.12) and in 2004 (19.63)), vasoprotective (in 2000 (33.89), in 2002 (41.67) and in 2004 (34.23)), serum lipid reducing agents (in 2000 (12.79), in 2002 (22.18) and in 2004 (31.50)). In financial terms, the consumption of β-blockers in 2000 ($7,024,000), and 2002 ($8,131,000), ACE inhibitors in 2000 ($18,714,000) and 2004 ($32,290,000), Ca-blockers in 2000 ($16,971,000) and 2004 ($19,454,000), diuretics in 2000 ($1,609,000) and 2004 ($2,478,000) can be seen from this study. CONCLUSIONS: Inseparable components of the Slovak drug policy must be viewed realistically with regard to the antihypertensive drugs' consumption. Adherence to principles of antihypertensive treatment's guidelines lead to fundamental short and long term financial savings within health care systems.

PCV64

PHARMACOECONOMIC ANALYSIS OF 160 MG VALSARTAN VERSUS LOSARTAN AND TELMISARTAN IN THE TREATMENT OF SYSTEMIC ARTERIAL HYPERTENSION IN THE MEXICAN HEALTH SECTOR

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OBJECTIVE: To estimate the cost-effectiveness of 160 mg valsartan as an alternative treatment for systemic arterial hypertension as compared with daily doses of 100mg losartan and 80mg telmisartan using a pharma-economic analysis.

METHODOLOGY: The study was based on a literature review and expert opinion in two phases: the first was a literature search to determine effectiveness expressed as a reduction of mm Hg; the second consisted of a cost-effectiveness analysis. The model used the Mexican Health System perspective. Only direct medical costs were included. Data costs were obtained from published lists of unitary costs for the Health Sector. RESULTS: Following treatment with 160mg valsartan and 100mg losartan for 4 weeks, the mean sitting diastolic blood pressure (MSDBP) was −10.5 mm Hg and −9.7 mm Hg respectively. The difference was not significantly significant. In the case of valsartan versus 80mg telmisartan, valsartan proved more effectiveness, showing a reduction in systolic and diastolic pressure of −18.6 and −12.1 mm Hg respectively as compared with reductions of −10.8 and −8.4 mm Hg for telmisartan. The cost analysis did not show any differences in terms of other medical interventions but there was a difference in the cost of the drugs. The monthly cost per patient treated was the lowest with 160mg valsartan at $246.67 Mexican pesos ($US22.42), as compared with $695.60 Mexican pesos ($US63.23) for 100mg losartan and $469.29 ($US42.66) for 80mg telmisartan. CONCLUSIONS: Treatment with 160mg valsartan is the least costly with at least the same efficacy in reducing arterial pressure as 100mg daily dose of losartan. In the case of 80mg telmisartan, 160mg valsartan was more effective with a lower cost. It has been shown that 160mg valsartan is the preferred treatment in terms of pharma-economic parameters compared with the other options studied. Sensitivity analysis confirmed the results obtained in the base case.

PCV66

PATIENTS ON ARBS (AND VALSARTAN AS A REPRESENTATIVE) EXPERIENCE HIGHER PERSISTENCE AND COMPLIANCE (ADHERENCE) WITH THERAPY COMPARED TO OTHER ANTIHYPERTENSIVE CLASSES IN A GERMAN SICKNESS FUND POPULATION

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OBJECTIVES: To investigate if there are differences in the persistence and compliance to therapy depending on the antihypertensive drug class prescribed first (index drug). METHODS: Prescription claims data were analysed for the 2000 to 2003 time period. Index prescriptions were determined for: ACE-inhibitors (ACEi), angiotensin receptor blockers (ARB), beta blockers (BETA), calcium channel blockers (CCB), and diuretics (DIU). Patients regarded as newly diagnosed (i.e., without any antihypertensive medication 180 days before the index time point) with a follow-up of at least 360 days were included in the study. Persistence rates (percentage of beneficiaries on continuous therapy with the index drug at 180 and 360 days) were calculated for each drug class. Compliance was determined in terms of the medication possession ratio (MPR) for 180 and 360 days (dispensed supply in defined daily dose (DDD) within 180 and 360 days)