OBJECTIVE: To assess costs related to hypertension in the elderly and in patients less than 65 years of age with uncontrolled hypertension in Poland. METHODS: The time horizon of the analysis was 12 months and a retrospective approach was applied. Calculations were made from the societal perspective and third party payer perspective. Both direct medical costs and indirect costs were included. A detailed cost analysis was made for the 4392 patients with uncontrolled hypertension, comparing elderly patients with patients under 65. Resource utilisation data were derived from a scientific project conducted among GPs in the whole of Poland in the year 2000. Data concerning the efficiency of blood pressure control were gathered from the Polish epidemiological study. Unit costs were obtained from the Polish National Health Fund. RESULTS: Among the 8.4 million hypertensive patients in Poland 57% receive active treatment, 80% (3.8 million) of which do not reach the appropriate blood pressure target. The distribution of the direct medical costs in patients with uncontrolled hypertension was as follows: drugs 29%, laboratory, diagnostic tests 13%, hospitalisation 27% and physicians’ consultations 31%. Taking the societal perspective, the direct medical costs were higher by 8% in the elderly uncontrolled patients and amounted to €249.30 but indirect costs were more than 12 times lower in the elderly as compared to €241.85 in patients under 65. The total costs in the elderly uncontrolled patients assessed from the third party payer perspective were higher by 14% and amounted to €201.74. CONCLUSION: The costs related to uncontrolled hypertension constitute a considerable economic burden. Uncontrolled hypertension might be the cause of increasing expenditure on health care in the near future. Wider use of more efficient antihypertensive drugs may help to avoid this phenomenon.

PCV54
CARDIOVASCULAR RISK CONTROL IN HYPERTENSION AND/OR DYSLIPIDEMIA IN PRIMARY CARE
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OBJECTIVE: To determine cardiovascular risk factors profile (CVRF) and the percentage of patients reaching goals as defined by ATP III, in a population of patients with dyslipidemia and/or hypertension, in daily clinical practice. METHODS: A total of 9001 patients with dyslipidemia and/or hypertension, assigned to four Catalan primary care centres were selected. 1) CVRF profile; 2) a classification of the patients by LDL cholesterol (cLDL) levels, as for the ATP III criteria; and 3) the percentage of patients reaching optimal control goals, were estimated for the three groups: hypertensives without dyslipidemia (HT without DL), patients with dyslipidemia without HT (DL without HT) and hypertensives with dyslipidemia (HT with DL). RESULTS: 1) Cardiovascular heart disease or equivalent was present in 36.8%. A 7.9% had one CVRF; 29.2% two CVRF; 43.2% three CVRF; 17.1% four CVRF and 2.1% five CVRF. 2) Percentage with optimal cLDL control was 40.1% for HT without DL, 26.9% for DL without HT and 27.8% for HT with DL. 3) A 27.1% simultaneously had optimal levels of cLDL and blood pressure (BP). That percentage was 30.1% for HT without DL; 27.5% for DL without HT and 21.9% for DL with HT (p < 0.0001). CONCLUSIONS: More than one-third (36.8%) of patients with hypertension and/or dyslipidemia have a previous history of cardiovascular disease or equivalent. Almost two-thirds (62.9%) presented with one or more additional CVRF. Despite high quality standards, the proportion of patients with optimal levels of cLDL and BP (27.1%) is small and there is much room for improvement.

PCV55
EVALUATION OF COSTS RELATED TO HYPERTENSION IN PATIENTS WITH UNCONTROLLED HYPERTENSION IN POLAND
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OBJECTIVE: To assess costs related to hypertension in the elderly and in patients less than 65 years of age with uncontrolled hypertension in Poland. METHODS: The time horizon of the analysis was 12 months. Direct costs were divided into direct medical and indirect costs. Unit costs were obtained from the Polish National Health Fund. RESULTS: The total costs in the whole of Poland in the year 2000 were €241.85 in patients under 65 and €293.51 in the elderly. The indirect costs contribution in the total costs was the highest (57%) in the coronary artery disease group and the lowest (26%) in the diabetes group. Based on the data presented, the cost of hospitalisation of patients suffering from coronary artery disease co-existing with diabetes was €2702. CONCLUSION: A wider use of anti-hypertensive drugs more effective in terms of blood pressure control may help to avoid this phenomenon.

PCV56
EVALUATION OF COSTS RELATED TO HYPERTENSION IN PATIENTS WITH CONCOMITANT DISEASES IN POLAND
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OBJECTIVE: To compare costs in patients with non-complicated arterial hypertension to costs in hypertensive patients suffering from concomitant diseases in Poland. METHODS: The time horizon of the analysis was 12 months and a retrospective approach was applied. Calculations were made from the societal perspective and third party payer perspective. Both direct medical and indirect costs were included. RESULTS: Costs in patients (n=2532) with non-complicated hypertension were compared to costs observed in hypertensive patients (n=2702) with co-existing: hypercholesterolemia, diabetes mellitus, coronary artery disease, heart failure and a combination of these. Resource utilisation data were derived from a scientific project conducted among GPs in the whole of Poland in the year 2000. The unit costs were obtained from the Polish National Health Fund. RESULTS: The annual direct medical costs in a patient with non-complicated hypertension amounted to €184.12. The costs increase observed in a patient with concomitant disease was as follows: 5% in diabetes mellitus, 6% in hypercholesterolemia, 16% in heart failure, and 19% in coronary artery disease.

The highest cost increase was related to hypertensive patients suffering from coronary artery disease co-existing with diabetes (63%) and heart failure (80%). The costs of hospitalisation and doctors’ consultations were identified as crucial cost drivers in all evaluated groups. The indirect costs contribution in the total costs was the highest (57%) in the coronary artery disease group and the lowest (26%) in the diabetes group and it respectively amounted to €288.26 and €68.49 per patient per year respectively, in comparison with €128.87 in the group with non-complicated hypertension. CONCLUSION: A wider use of antihypertensive drugs more effective in terms of blood pressure...
control and a positive influence on organ complications related to hypertension may result in avoidance of huge costs due to the complications incidences.

**PCV57**

**COST-EFFECTIVENESS OF NEBIVOLOL VERSUS ATENOLOL AND ACE INHIBITOR MONOTHERAPY IN PATIENTS WITH MODERATE HYPERTENSION**

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OBJECTIVE: To assess the cost-effectiveness of antihypertensive treatment with nebivolol, atenolol or ACE inhibitor monotherapy in 60-year and 70-year-old patients with moderate hypertension in Germany. METHODS: Using a decision-analytic Markov model, we determined incremental cost-effectiveness ratios (ICER) of treatment with nebivolol, atenolol and ACE inhibitor monotherapy from a third party payer’s perspective over a 5-year time horizon. Effects on diastolic blood pressure were obtained from a pooled analysis of published randomized clinical trials using response and compliance data. The 5-year absolute risk for an initial coronary, cerebrovascular event or cardiovascular death was computed using the gender specific algorithm based on Framingham Heart Study data. Costs were derived from published tariff lists. Direct medical costs per patient included cost of drug treatment over the 5-year period and cost of acute care for coronary and cerebrovascular events. RESULTS: The comparison of nebivolol vs. ACE inhibitors showed that 3.5 (60-year-old men) and 3.4 (70-year-old men) life years more per 100 patients could be gained with nebivolol. With higher incremental costs, ICER for nebivolol versus ACE inhibitors was €2025 (60-year-old men) and €1824 (70-year-old men). In comparison to atenolol, 6.3 (60-year-old men) and 5.7 (70-year-old men) life years more per 100 patients could be gained. ICER for nebivolol versus atenolol was €4672 (60-year-old men) and €4704 (70-year-old men) per life-year gained. For women, the number of incremental life years gained was lower. ICER for nebivolol versus ACE inhibitors were €2347 (60-year-old women) and €1,904 (70-year-old women) and for nebivolol versus atenolol €1,648 (60-year-old women) and €9060 (70-year-old women) per life-year gained. CONCLUSION: Based on our decision analysis, the use of nebivolol was more effective than antihypertensive therapy with ACE inhibitors and atenolol. Antihypertensive treatment with nebivolol is a cost-effective treatment option from third party payer’s perspective in Germany in the selected patient groups.

**PCV59**

**PHARMAECONOMIC ANALYSIS OF VALSARTAN/HYDROCHLOROTHIAZIDE (HCTZ) VERSUS Candesartan/HCTZ AND VERSUS TELMISARTAN/HCTZ IN THE TREATMENT OF SYSTEMIC ARTERIAL HYPERTENSION IN MEXICO**

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OBJECTIVES: To calculate the cost-effectiveness of daily treatment of 160mg valsartan/25mg HCTZ for systemic arterial hypertension (SAH) as compared with 16mg candesartan/12.5mg HCTZ and with 80mg telmisartan/12.5mg HCTZ. METHODS: The information used in this model originates from a study comparing therapeutic effectiveness of valsartan/HCTZ in combination versus combinations of candesartan/HCTZ and of telmisartan/HCTZ for the treatment of SAH. Patients received 16mg candesartan/12.5mg HCTZ or 80mg telmisartan/12.5mg HCTZ daily for 4 weeks. The Mean Sitting Diastolic Blood Pressure (MSDBP) was measured at the beginning and at the end of the 4-weeks treatment. Those patients who were not controlled using either of these regimens (MSDBP > 90mmHg) were given daily doses of 160mg valsartan/25mg HCTZ for a further 4 weeks. RESULTS: Patients who received 16mg candesartan/12.5mg HCTZ or 80mg telmisartan/12.5mg HCTZ showed a 74% success rate in achieving a MSDBP < 90mmHg. Patients who received 160mg valsartan/25mg HCTZ showed a 28% success rate in achieving a MSDBP < 90mmHg. The combination of 160mg valsartan/25mg HCTZ demonstrated a 74% success rate for the same parameter. Furthermore, the reduction in MSDBP in those patients who received 160mg valsartan/25mg HCTZ was 10.3mm Hg greater than that obtained in the first phase of the study (p < 0.0001). The only important difference in the use of medical resources related to these therapies was the cost of the medicines involved. The monthly anti-hypertensive treatment cost for the 160mg valsartan/25mg HCTZ combination was the lowest of the three combinations at $295.71 Mexican pesos (US$26.88) as compared with $354.54 Mexican pesos (US$32.23) for the 16mg candesartan/12.5mg HCTZ combination and $428.51 Mexican pesos (US$38.95) for 80mg telmisartan/12.5mg HCTZ. CONCLUSIONS: The combination of 160 mg valsartan/25 mg HCTZ is more effective and less expensive than either 16 mg candesartan/12.5 mg HCTZ or 80 mg telmisartan/12.5 mg HCTZ.