simvastatin/atorvastatin strategy was estimated at £74.4 m with 62.9% reaching the TC target of <4.0 mmol/L. Treatment with the simvastatin/rosuvastatin strategy was estimated to cost £70.3 m with 66.5% of patients reaching this target. CONCLUSIONS: A simvastatin/rosuvastatin strategy is more cost-effective than a simvastatin/atorvastatin strategy at treating newly eligible Scottish patients, with cost savings of £4.1 m and an additional 3.6% of patients (13,314) reaching the TC target of <4.0 mmol/L.

**PCV42**

**IMPACT OF VENTRICULAR ARRHYTHMIAS ON HOSPITALIZATION COSTS IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION (AMI)**

Iyver S1, Ciuryla V1, Wang P2

1Wyeth Research, Collegeville, PA, USA, 2Premier Health care Informatics, Charlotte, NC, USA

**OBJECTIVE:** To determine the impact of ventricular arrhythmias on hospitalization costs for acute myocardial infarction (AMI) patients. **METHODS:** A retrospective cohort study design was used. Adult patients with primary diagnosis of AMI (ICD-9 code: 410.x1), between July 2003 and June 2004, were identified from a large retrospective database of approximately five hundred hospitals in the United States. The AMI patients were classified based on secondary diagnosis of ventricular arrhythmia into three groups: AMI with sustained ventricular tachycardia (sustained VT)/ventricular fibrillation (VF) (ICD-9 code: 427.4x, 427.5); AMI with paroxysmal ventricular tachycardia (PVT) (ICD-9 code 427.1); and AMI without ventricular arrhythmia. Multivariate hierarchical regression analysis was performed to study the impact of ventricular arrhythmias on hospitalization costs controlling for patient demographics, hospital characteristics, site of infarction, history of coronary heart disease, co-morbidities and procedures such as percutaneous coronary intervention (PCI), bypass grafts and catheterization.

**RESULTS:** A total of 91,225 patients with primary diagnosis of AMI were identified, of which 8125 (8.9%) patients had a secondary diagnosis of ventricular arrhythmia, including sustained VT/VF (N = 3004; 3.3%) and PVT (N = 5121; 5.6%). A majority of the AMI patients with ventricular arrhythmia were male (70.2%), Caucasian (73.4%) and ≥65 years (55%). Average unadjusted hospitalization costs were significantly higher (p < 0.001) in AMI patients with sustained VT/VF ($26,524 ± 29,869) and PVT ($23,447 ± 27,704) than those for AMI patients without ventricular arrhythmia ($14,449 ± 16,638). Sustained VT/VF (b = $9220, p < 0.001) and PVT (b = $8125, p < 0.001) were found to significantly increase hospital costs in AMI patients in the regression model. Presence of diabetes (p < 0.001), cancer (p < 0.001), procedures like PCI, bypass grafts and catheterization (p < 0.001) were the other significant positive predictors of hospital costs. **CONCLUSIONS:** Ventricular arrhythmias in AMI patients were associated with significantly higher hospitalization costs. Prevention of ventricular arrhythmia in AMI patients could potentially yield benefits in terms of reduced hospitalization costs.

**PCV43**

**COST ANALYSIS OF TREATMENT WITH NESIRITIDE FOR ACUTE DECOMPENSATED HEART FAILURE IN A BRAZILIAN SETTING**

Pereira M1, Vianna D2, Bacaltchuk J1, Duchesne P2

1Racionale, Sao Paulo, Brazil, 2University of Rio de Janeiro, Rio de Janeiro, Brazil, 3Janssen-Cilag, Sao Paulo, Brazil

**OBJECTIVES:** Nesiritide is a new technology to be introduced to the Brazilian health care system for the treatment of acute decompensated heart failure (ADHF). This study evaluated the cost impact of nesiritide versus standard care (SC) for the private hospital sector. **METHODS:** As no clinical or usage data were available for Brazil, we started from a published US study (Lenz, 2004) that detailed resource use of nesiritide versus SC in the treatment of ADHF over a 3 months period. Key findings were in line with other published resource use studies. Brazilian cost data (2006) were then applied to the findings. In a sensitivity analysis, key resource use items were adapted to the Brazilian clinical setting based on expert opinion and literature. **RESULTS:** The Lenz study demonstrated that nesiritide can impact positively on resource use: reduced length of stay in the ICU unit (1 day); reduced number of re-admissions (25.9% vs 34.2% SC); reduced need for co-medication. Applying Brazilian hospital cost data, rendered treatment with nesiritide cost-saving versus SC. For type A hospitals, treatment with nesiritide costed R$10,486 versus R$11,403 with SC, a saving of R$917 (US$102) per patient. For type C hospitals, the costs were respectively R$17782 (nesiritide) and R$8016 (SC), a saving of R$924 (US$102) per patient. In a sensitivity analysis, the longer average length of stay in Brazilian hospitals was reflected and resulted in larger potential savings. **CONCLUSIONS:** The cost-savings found in this study are more modest than the ones reported for US settings, reflecting the reality of lower health care costs in Brazil. However, introducing nesiritide to the Brazilian private hospital setting has the potential of reducing hospital-related costs for treating ADHF. A local observational study would be needed to confirm these results. **RS:** reais (Brazilian currency), exchange rate 30-05-2006.

**PCV44**

**COMORBIDITIES, COSTS AND THERAPEUTIC GOALS ACHIEVED IN THE SECONDARY PREVENTION OF THE PRIMARY HEALTH CARE**

Sicras A1, Navarro R1, Llopard López JR2, F Bobadilla J3, García M3, González P4

1Badalona Servicios Asistenciales, Badalona, Barcelona, Spain, 2Pfizer Spain, Alcobendas, Madrid, Spain, 3Euroclin Institute, Alcobendas, Madrid, Spain

**OBJECTIVES:** To measure the comorbidity burden, the economic impact and some therapeutic goals, among patients with cardiovascular disease (CVD) in several primary care centres (PCC) in daily medical practice. **METHODS:** A retrospective study was performed based on data from patients with diagnosis of CVD (CIAP codification), aged >35 years, from five Spanish PCC. Main analysed variables were: age, sex, events/comorbidities, sanitary resources consumption, clinical parameters (diastolic blood pressure [DBP], systolic blood pressure, total cholesterol, LDLc, HDLc, HBA1c, basal glycemia, triglycerides, body mass index [BMI]). A cost model for each patient was developed by differentiating semifixed cost (personal, external personal and purchases) from the variables (pharmacy, laboratory, derivations, etc.). Costs were adjusted using an ANCOVA multivariant analysis, based on estimated marginal means (Bonferroni correction). **RESULTS:** Of the 51,515 patients included in the analysis, 2600 (5.0%) had a history of CVD (CI: 4.2–5.8%); 68.2% were men. Mean number of events/patients/year was 8.1 ± 4.2 vs. 5.2 ± 3.6 (p = 0.000) and number of visits/patient/year was 15.1 ± 13.5 vs. 8.4 ± 8.2 (p = 0.000). The main associated variables were: males (OR = 3.4; CI: 3.1–3.8; p = 0.000), dyslipidemia (OR = 2.0; CI: 1.8–2.2; p = 0.000) and diabetes mellitus (OR = 1.9; CI: 1.6–2.1; p = 0.000). €41.5 million in costs were quantified (pharmacy: 69.3%, semifixed: 21.7%). The unitary costs per comorbidity-adjusted life-year per patient (marginal means) was €1484.87.
(SD = 35.95) with CVRF vs. €769.33 (SD = 8.02) without CVRF, p = 0.000. Patients with CVRF showed better DBP control (74.9 ± 9.7 vs. 76.44 ± 10.5), total cholesterol (194.8 ± 40.9 vs. 209.2 ± 39.7) and LDLc (123.2 ± 37.3 vs. 138.4 ± 35.6); p = 0.000.

CONCLUSIONS: CVD prevalence is not very remarkable in absolute terms; nevertheless, the costs corresponding to these patients, adjusted for morbidity are important, increasing with age and cause high sanitary resources consumption in Spanish primary care centres. To achieve therapeutic goals in secondary prevention with respect to the general population might be improved.

PCV45

COST OF CHRONIC VENOUS INSUFFICIENCY (CVI) IN POLAND

Bartminski W, Faluta T, Czech M, Pachocki R
Servier Polska, Warszawa, woj. mazowieckie, Poland

OBJECTIVE: CVI remains one of the most common diseases in Poland with 40% prevalence. Thirty percent of the population with CVI receive some kind of treatment. The objective of this analysis is to demonstrate the current cost of CVI in Poland.

METHODS: Study data were collected in the representative group of 1000 people. A total of 223 patients who were receiving treatment (previously or currently) were further questioned using a special resource utilisation questionnaire. Direct costs included oral and local drugs (topical drugs and compression therapy), surgical and cosmetic interventions, diagnostic tests and hospitalisations. Indirect costs were calculated using the human capital approach and included the costs of social and family help, sick leaves and early retirements due to CVI.

RESULTS: The average total cost per person per year from the investigated group is €356.82 with average direct costs of €66.09. The total burden of CVI in Poland in terms of direct medical costs may reach €504,418,178 (19% of the total cost). The distribution of total costs per person in the investigated group is as follows: oral treatment 2%, local treatment 2%, compression therapy 1%, all surgical interventions 4%, hospitalisations 10%, family and social help 58%, sick leaves 13%, pensions 10%. CONCLUSION: CVI remains a significant economic burden for the Polish population with total annual costs up to €2,723,354,431. The main cost driver in the group of direct medical costs (which comprise 29% of the total cost) is the cost of hospitalisation (53%) while the cost of oral medication is the least significant (2%). An early diagnosis and subsequent proper treatment of CVI may lead to an optimal allocation of expenditures and contribute to a significant reduction of the total costs of CVI in Poland.

PCV46

NON-HOSPITAL COSTS AND NUMBER OF CARDIOVASCULAR RISK FACTORS (CVRF) IN SPANISH HIPERTENSIVE PATIENTS

F Bobadilla J, Siracas A, Garcia M, Soto J
1Pfizer Spain, Alcobendas, Madrid, Spain; 2Badalona Servicios Asistenciales, Badalona, Barcelona, Spain; 3Euroclin Institute, Alcobendas, Madrid, Spain

OBJECTIVE: There are no data regarding the relationship of cardiovascular risk factors (CVRF) as defined in the ASCOT (Anglo-Scandinavian Cardiac Outcomes Trial) and non-hospital costs in hypertensive patients (HP) in Spain. The objectives of this study are to determine the relationship between CVRF and non-hospital costs in the HP. METHODS: HP data registered between 2004 and 2005 from Spanish primary care centres were retrospectively studied. We analyzed CVRF as defined in ASCOT: left-ventricular hypertrophy, other specified abnormalities on EKG, type 2 diabetes, peripheral arterial disease, previous stroke, male gender, age ≥ 55 years, microalbuminuria, smoking, ratio of plasma total cholesterol to HDL-cholesterol ≥2, or premature family history of CHD, and the following costs: pharmacy, outpatient visits, radiology, other complementary tests, sanitary transport, specialist visits and total costs. Correlation between CVRF number and costs were calculated (Kruskal-Wallis non-parametric test), and costs were compared between HT with CVRF ≥ 3 and CVRF < 3 (Wilcoxon non-parametric test).

RESULTS: A total of 3410 HP were included in the analysis, 158 (5%) of them have no aditional CVRF; 874 (26%) have 1; 1063 (31%): 2; 746 (22%): 3; 365 (11%): 4; 155 (5%): 5 and 49 (1%): 6. A significant relationship was demonstrated among total costs and CVRF number (p < 0.0001). The HP with CVRF ≥ 3 showed a cost significantly higher than CVRF < 3: €1611 vs. €1855 (p < 0.0001). The relationship was as follow (CVRF number-Cost): 0 CVRF-€1289, 1 CVRF-€1603, 2 CVRF-€1666, 3 CVRF-€1759, 4 CVRF-€1890, 5 CVRF-€2074, ≥6 CVRF-€2368. CONCLUSIONS: Additional CVRF in the hypertensive patients, not only increase CV risk, but the non-hospital costs as well. The patient with CVRF ≥ 3 showed a greater non-hospital cost that those with CVRF < 3. It is important to analyze if this greater cost contributes to a greater effectiveness and to implement the treatments that have demonstrated benefits in terms of morbimortality for this population.

PCV47

DIRECT MEDICAL COSTS FOR TREATMENT OF MILD TO MODERATE HYPERTENSION IN PATIENTS WITH TYPE II DIABETES

Berto P, Cremonesi G
1Pbe consulting, Verona, Italy; 2Chiesi Farmaceutici, Parma, Italy

OBJECTIVE: To assess direct medical costs of three monotherapies for treatment of mild to moderate hypertension in patients with type II diabetes. METHODS: After a run-in period of 2 weeks, eligible patients PAs (90 < 140) were enrolled to a randomized, parallel group clinical ≤110; PAS study lasting 50 weeks. Patients were randomized to the following treatments: delapril (D) 30 mg/die, ramipril (R) 2.5 mg/die, valsartan (V) 80 mg/die. After 6 weeks of active treatment, uncontrolled patients were switched to combination therapy, whilst controlled patients were maintained on their initial therapy up to the end of the study period. This economic analysis was run for monotherapy-treated patients and in the perspective of the Italian NHS. Direct medical costs (year 2006) were considered: study drugs, concomitant therapies, hypoglycaemic drugs, unscheduled tests and visits and drugs used to treat adverse events. RESULTS: A total of 236 patients in monotherapy resulted eligible for the economic analysis. At the end of the treatment period no statistically significant differences were found among the 3 study groups on the primary efficacy variable (PADO), on the number of patients requiring combination therapy and on secondary efficacy parameters. Cost-minimisation analysis was performed with costs normalised at 1 year to account for slightly different lengths of follow-up. Total average cost per patient/year for D vs. R vs. V was respectively €521 vs. €636 and €742. Average cost per patient/year, for study drugs was respectively €172; €174; €314; for medical visits €95; €94; €92, for laboratory tests €69; €69; €68, for hypoglycaemics €151; €233; €214 and for concomitant drugs €33; €67; €54. CONCLUSION: This study demonstrates that delapril in mild-moderate hypertension for type II diabetes patients, is equally effective as ramipril and valsartan whilst allowing consistent reductions of medical costs/year (−18% and −30% of total per patient cost respectively).