

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)

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**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

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**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 (401US\$) per patient. For type C hospitals, the costs were respectively R\$7782 (nesiritide) and R\$8016 (SC), a saving of R\$234 (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. R\$: reais (Brazilian currency), exchange rate 30-05-2006.

## PCV44

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

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**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 multivariate 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