2006 were identified and categorized into two groups: with DM and without DM. Patients with complete insurance coverage and medication information 1-year prior and post the index hospitalization were included. Annual health care costs (in 2008 US dollars) and resource utilization were compared for both groups (All p < .001 unless otherwise stated). RESULTS: Of 12,672 patients who met the study criteria, 3,040 (24%) were diabetic and 9,632 (76%) were non-diabetic. Higher percent of diabetic patients had at least one all-cause rehospitalization event (49.0% vs 35.2%) or cardiovascular-related rehospitalization event (45.1% vs 32.3%). Mean length of stay (LOS) was longer for diabetic patients during the index hospitalization (4.3 days vs 3.3 days), as well as during the rehospitalization event (all-cause: 4.6 days vs 3.3 days; cardiovascular-related: 4.6 days vs 3.2 days). In addition, patients with DM had more physician’s office visits (16.3 vs 12.4), ER visits (0.8 vs 0.5), and outpatient hospital visit (9.0 vs 7.1) during the 12-month follow-up period. Both cohorts had similar index ACS hospitalization costs ($32,026 vs $29,082) but diabetic patients incurred higher rehospitalization costs (all-cause: $19,913 vs $10,947; cardiovascular-related: $18,256 vs $10,991), outpatient costs ($14,836 vs $8,617) and pharmacy costs ($6,105 vs $3,921). One-year follow-up health care costs were significantly higher for patients with DM compared with those without DM ($40,833 vs $23,485). CONCLUSIONS: The presence of DM significantly increases health care costs and resource utilization for ACS patient.

**PCV80**

**LONGITUDINAL COST IMPACT OF ATRIAL FIBRILLATION IN PATIENTS SUFFERING FROM CARDIOVASCULAR DISEASES**

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OBJECTIVES: To examine the cost impact of atrial fibrillation (AFib) in patients with atherothrombotic diseases in a German statutory health insurance population.

METHODS: Study design: A retrospective review of the medical, hospital, and pharmacy claims database of a German statutory health insurance. We reviewed pharmacy and medical claims data for the years 2004-2005 from an insurance covering about 5 M insures. The data of patients suffering from cardiovascular diseases (myocardial infarction, stroke or PAD) were available. By using the documented ICD-10 codes (I48.10, I48.11, and I48.19) for hospitalizations we identified patients who experienced AFib during 2004 and 2005. For these patients we reviewed all the charges incurred for a one-year period after the initial index event on the basis of weekly costs and from the third party payer’s perspective.

RESULTS: A total of 14,798 patients (mean age 72 ± 10 years) with AFib could be included in the analysis. The majority of the patients (55%) were female. The cost for atrial fibrillation patients for one year was €7690. The largest portion of the total cost (78%) resulted from the costs for hospitalization while the initial hospital stay was associated with 30% of total costs. Approximately 100% of the study population received prescription drugs at an average cost of €1535 per prescription drug user. Compared to the drug treatment before the initial diagnosis of AFib, the costs increase by the factor 1.4 during the first year after the event. The majority of costs one year after the event arise during the first 10 weeks (approx. 50%). CONCLUSIONS: An acute AFib-event in patients with atherothrombotic diseases results in a significant financial burden for the perspective of the statutory health insurance population. Improved management of the condition is needed to reduce the cost of treatment associated with AF.

**PCV78**

**ECONOMIC IMPLICATIONS OF OBESITY AMONG PEOPLE WITH ATHEROTHROMBOTIC DISEASE IN AUSTRALIA**

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OBJECTIVES: To measure the cost of disease from the governmental perspective in Australia based on body weight in people with and at high risk of atherothrombotic disease using a bottom-up approach to cost estimation; and to explore the causes of any differences found. METHODS: The health care costs of obesity were estimated from 2819 participants recruited into the nation-wide Australian REACH Registry with established atherothrombotic disease or at least three risk factors for atherothrombosis. Enrolment was in 2004, through primary care general practices. Information was collected on the use of cardiovascular drugs, hospitalisations and ambulatory care services. 'Bottom-up' costing was undertaken by assigning unit costs to each health care item, based on Australian Government-reimbursed figures 2006–2007. Generalised linear models were used to estimate associations between direct medical costs and BMI categories. RESULTS: Annual pharmaceutical costs per-person increased with increasing BMI, even after adjusting for gender, age, living place, formal education, smoking status, hypertension and diabetes. Adjusted annual pharmaceutical costs were higher (83$ p = 0.006) and $142 (p = 0.001) respectively than those of the normal-weight patients. This was due to higher BMI categories receiving more pharmaceuticals than normal-weight patients with the same condition. There was no significant change across the BMI categories in annual ambulatory care costs and annual hospital costs. CONCLUSIONS: In these patients with, or at high risk of, atherothrombotic disease, annual pharmaceutical costs were greater in patients with higher BMI, but there was no such gradient in annual hospital or ambulatory care costs. The greater cardiovascular pharmaceutical costs for patients of higher BMI remained even after adjusting for a range of demographic factors and comorbidities, and our results suggest that they are explained by a higher number of drugs used for the same condition. Further investigation is needed of the reasons for this level of drug utilisation.

**PCV97**

**BURDEN OF ILLNESS STUDY IN PATIENTS WITH RESISTANT HYPERTENSION IN UK**

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OBJECTIVES: Resistant hypertension is defined as blood pressure (BP) that remains above goal in spite of the concurrent use of three antihypertensive agents from different classes. Some patients with resistant hypertension do not receive further treatment, potentially increasing the overall burden of disease on the health care system through increased health care use. To examine the burden of resistant hypertension to the UK health care system and explore the potential cost resulting from non-treatment of resistant hypertension. METHODS: The Health Improvement Network computerized data from 6.8 million patients in 382 practices was used to randomly select 9,000 patients with probable or confirmed resistant hypertension. Patients were characterized by number of therapies received according to NOC treatment guidelines (three therapies step 3 vs. four or more, step 4). Blood pressure was used to classify patients as controlled or uncontrolled hypertension. Associations between covariates and patient status were examined using analysis of variance and logistic regressions. Pattern of care was assessed for patients in each category using descriptive statistics. RESULTS: Mean age of patients with hypertension included in the study was 68.8 (SD = 11.5). Among patients in step 3 at baseline, 57.2% had uncontrolled BP (mean BP 151/81 v. 127/73); among patients in step 4, 57.9% were uncontrolled (mean BP 153/89 v. 129/70). After two years of follow-up, approximately 25% of patients did not receive treatment recommended by NOC guidelines. Older male patients with diabetes or kidney disease were more likely to have resistant hypertension or uncontrolled BP at either step 3 or 4. CONCLUSIONS: A large proportion of patients with hypertension do not achieve BP control despite maintaining three or more antihypertensive therapies. The impact of not treating these patients with appropriate therapies can substantially contribute to overall burden of hypertension borne by the UK health care system.