demographic characteristics, total health care utilization and cost burden were higher for patients who suffered a TIA after an NVAF diagnosis, relative to patients who did not.

PCV48

CLINICAL OUTCOMES AND COSTS ASSOCIATED WITH STROKE IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

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OBJECTIVES: To compare clinical outcomes and cost burden of patients who suffered a stroke during the 180 days after diagnosis of non-valvular atrial fibrillation (NVAF) with patients who did not. **METHODS:** Based on 2005-2007 US Medical insurance claim files, patients aged 65 years and older who have had two or more primary diagnoses of NVAF, occurring within 30 days of one another, were selected. The 180-day follow-up mortality rate, health care facility use and costs for patients with and without incidences of stroke were compared. Risk adjustment was performed using the propensity score matching (PSM) method with the ProbChoice™ algorithm. **RESULTS:** Out of patients who were identified with and without NVAF pre-stroke (n=18,195), 541 (2.97%) suffered a stroke during the 180 days after the NVAF diagnosis. After PSM risk-adjustment for pre-specified covariates, mortality (7.39% vs. 1.07% p<0.0001), outpatient emergency room (ER) visits (80.59% vs. 48.11% p<0.0001), readmission rates (1.85% vs. 0.40%, p<0.0001), transient ischemic attacks (44 vs. 8 /100 person years), and intracranial hemorrhage rates (71 vs. 7/100 person years) were all higher for patients who suffered a stroke compared to those who did not. Although risk-adjusted outpatient ER costs and office visit costs did not differ significantly between the two groups, patients who suffered a stroke had significantly higher inpatient ($24,231 vs. $15,137, p<0.0001) and total ($33,439 vs. $13,782, p<0.0001) expenditures. **CONCLUSIONS:** Most of the adverse events analyzed were higher for patients who suffered a stroke after an NVAF diagnosis relative to patients who did not. Total health care utilizations and health care costs were also significantly increased.

PCV49

EVALUATING THE MANAGEMENT OF THE REHABILITATION UNIT IN A TERTIARY REFERRAL HOSPITAL IN SPAIN: A COST-ANALYSIS STUDY

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OBJECTIVES: To ascertain the direct costs related to hospitalization in the Physical Medicine Service and Rehabilitation of a tertiary referral hospital during the year 2009. **METHODS:** An epidemiological, observational retrospective study was carried out in the Central University Hospital of Asturias –HUCA-, Spain. All patients admitted to the Rehabilitation Unit (RU) and suffering from a cerebrovascular disease (CVD), brain injury (BI), spinal cord injury (SCI) or amputations were included. RU services was acting as secondary referral level -SRL- in case of BI and CVD. In contrast, SCI and amputations were attended in the same RU as tertiary referral level-TRL-. A cost-analysis following hospital perspective was performed recording all health resources at patient level. Next, direct costs were calculated attaching a published cost to each resource. Socio-demographic and clinical variables were registered to describe the sample and to facilitate external comparisons. Mean costs per patient were calculated considering each of the pathologies and comparing SRL and TRL. Costs were defined in 2009 Euros. Chi2 test was used to compare socio-demographic and clinical variables between groups. Next, parametric (Student's t test and ANCOVA analysis) and non parametric analysis (bootstrapping) were applied to estimate economic differences between groups. **RESULTS:** A total of 243 patients admitted to RU were assessed. Mean age (SD) was 59.62 years (1.41) and 71.2% males. Mean cost per patient (SD): BI(n= 15) 28,837.87(23,998.80); CVD(n= 116), 31,751.05(19,151.26); SCI(n= 105), 27,635.39(24,856.55); amputations(n= 7), 24,342.86(5,426.48). Mean SRL cost was significantly higher than TRL: 31,417.48(19,681.03) and 27,429.61(24,106.37), respectively (p= 0.013). Total anual SRL cost was 4,115,751.43 and 3,072,167.39 TRL. **CONCLUSIONS:** Forty-six percent of total activity in the RU is related to TRL requiring 43% of total expenditure. Further research comparing this policy with early discharge and home rehabilitation should be implemented to promote the efficiency of this service.

PCV50

HOSPITAL COSTS ASSOCIATED WITH ATRIAL FIBRILLATION IN CANADA

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OBJECTIVES: Atrial fibrillation (AF) is a prevalent disease that often requires costly hospital care, but the cost of hospital utilization has not been reported in Canada. The purpose of this study was to estimate the cost of hospital utilization for AF in Canada. **METHODS:** Three national administrative databases (Discharge Abstract Database, Same Day Surgery and National Ambulatory Care Reporting System) for the year 2007/08 were used to capture admissions, same day surgeries and emergency department (ED) visits. Provincial/territorial data were extrapolated to the national level using age-gender census information where necessary. Records with a most responsible diagnosis (MRD) of AF, atrial flutter or a secondary diagnosis of AF were included in the analysis. Hospital costs were estimated by applying an average cost per weighted case to the resource intensity weight that was provided for each admission/visit, and then adding the physician fees for admissions, surgeries and interventions. All cost estimates are expressed in 2010 Canadian dollars. **RESULTS:** In 2007/08, the number of hospital admissions with MRD of AF was 10,924 for men and 11,899 for women, same day surgeries was 3,910 for men and 1,797 for women and ED visits were 29,754 for men and 28,312 for women. The average cost per admission was $6,718 with an average length of stay of 5.7 days. The average cost of same day surgery was $3,524 and an ED visit was $849. The total hospital cost for patients with AF was $815M; $710M for hospital admissions, $72.9M for ED visits, and $31.8M for same day surgery. Most of the costs were for hospital admissions when AF was listed as a comorbidity ($558.2M, 69%) **CONCLUSIONS:** The substantial cost burden of AF in the acute care sector is driven by the consequences of AF, while the costs for specific treatments for AF are relatively low.

PCV51

COST OF ACUTE CORONARY SYNDROME IN SWITZERLAND

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OBJECTIVES: Acute coronary syndrome (ACS) is the most important clinical consequence of coronary artery disease and a leading cause of death worldwide. This study aims to assess the costs of ACS from a social and health insurance perspective evaluating direct costs, production losses and intangible costs in terms of quality adjusted life years (QALYs) lost. **METHODS:** A bottom-up incidence approach was used. ACS-Patients with one or more ACS events were extracted from a national hospital database and from mortality statistics. Remaining life years of surviving patients were modelled on age, gender and life expectancy statistics. Inpatient costs include acute care and rehabilitation in 2008. Outpatient costs include costs for ambulance, visits to GP and cardiologist, outpatient diagnostics, medication and rehabilitation. Production losses were calculated according to the human capital approach, including absenteeism, permanent disability and premature death. Intangible costs were calculated based on literature data. Cost data are derived from official price lists, literature and experts. Validation of clinical data was conducted using the AMIS-PLUS registry. **RESULTS:** A total of 14,955 patients experienced a total of 16,815 ACS events in 2008; 2,752 died as a consequence of these. This resulted in 19,064 hospital stays with an average length of stay in acute care of 8.9 days per patient. Total direct costs amounted to 690 Mio Swiss Francs (CHF) for the society and 523 Mio CHF for health insurers. Forty-four percent belong to inpatient and 56% to outpatient services. Production losses were 515 Mio. CHF and intangible costs resulted in 37,457 QALYs lost. Average total direct costs and production losses per patient were 80,873 CHF. Results appear robust in sensitivity analysis. **CONCLUSIONS:** ACS causes considerable costs in terms of direct medical expenditures, lost production and premature death, even without taking into account costs for its chronic consequences such as congestive heart failure.

PCV52

TEMPORAL TRENDS IN THE HOSPITAL BURDEN OF ATRIAL FIBRILLATION AND STROKE ON SECONDARY CARE COSTS IN ENGLAND BETWEEN 2006 AND 2009

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OBJECTIVES: Atrial fibrillation (AF) is the commonest cardiac arrhythmia found in clinical practice with an increasing prevalence in the aging population. Local estimates vary from 1.2 to 2.5%. The objective of our study was to evaluate the burden of AF on secondary care costs in England, which is responsible for substantial cardiovascular morbidity and mortality. **METHODS:** AF and stroke event and cost data captured in Hospital Episode Statistics(HES), between 2006 and 2009, was analysed to estimate the trends in hospital episodes in England. **RESULTS:** A total of 193,742 patients with a primary or secondary diagnosis of AF were hospitalised in 2009, representing a 19% increase in AF patients on the previous 3 years. During this period there were 239,746 hospital spells with a diagnosis of AF; a 22% increase from 2006-2009. The total inpatient cost attributable to AF increased from £353 million in 2006 to a total of £361 million in 2009. As a proportion of all admissions, AF admissions were 1.1% in 2006 to 1.2% in 2009 and represented 1,162,213 bed days occupied in 2006 versus 1,108,283 in 2009. In 2009, of the 193,742 patients with a diagnosis of AF, 5,391 subsequently had a stroke. This gives a conversion rate from AF to stroke of 3.1% of patients – up from 2.5% in 2006. During this same period, the average length of stay for the stroke patient with AF has increased from 38 days to 43 days (higher than those patients who have only had a stroke). **CONCLUSIONS:** Despite advances in both AF and stroke management, AF presents a significant and increasing burden on hospital care in England. New initiatives are needed to detect AF early and prevent hospital admissions or to manage AF in rapid access arrhythmia clinics where appropriate therapies to manage the rate, rhythm and cardiovascular risks can be dispensed without needing admission.

PCV53

COST STUDY OF CAREGIVING FOR PATIENTS WITH CHRONIC SYMPTOMATIC HEART FAILURE IN SPAIN, INSIGHTS FROM THE INOESCARO STUDY

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OBJECTIVES: The objective of this study was to quantify, for the first time in a Spanish population, the time and cost burden of informal care for pts with heart failure. **METHODS:** A descriptive analysis of a multicenter, prospective observa-