10 days since acute stroke onset, 2,000 mg was administered intravenously; from day 11 to the end of the treatment periods (74 days), 1,000 mg was administered per os. The time horizon adopted in the model was 12 weeks. Based on the data on effectiveness of citicoline in complete patient recovery after 3 months reported by A. Davalos et al., the cost-effectiveness ratios (CERs) were calculated and compared. **RESULTS:** Estimated CERs were 513,099.20 RUB per one patient recovered in control group and 435,368.00 RUB per one patient recovered in citicoline group. Furthermore, the costs of rehabilitation of patients were lower in the citicoline group as compared to control group, cost savings were estimated to be about 1,719,610.00 RUB. **CONCLUSIONS:** The study has demonstrated that the treatment of acute ischemic stroke with citicoline was more cost-effective and had the potential to reduce the rehabilitation expenses.

PCV48

## REMOTE PATIENT MONITORING IN CRT-D RECIPIENTS MAY REDUCE USE OF HOSPITAL-BASED CARE

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**OBJECTIVES:** Heart failure (HF) is a costly disease imposing a substantial health burden which affects 1-2% of Europeans. Hospital readmission for HF is a common occurrence with 25% of all patients readmitted within 30-days following initial hospitalization. Reducing readmission is an important component of managing HF costs and increasingly being targeted with health care policy reforms. The objective of this study is to examine how remote patient monitoring (RPM) may affect health care costs following the placement of a CRT-D device for patients with HF through the use of a simulation model. **METHODS:** The analysis was an individual patient event-based simulation from a US payer perspective based on a sample of patients from RAPID-RF, a multi-center prospective single-arm registry which enrolled 889 patients who received a CRT-D and RPM system (LATITUDE® Boston Scientific). The modeled population consisted of patients that had at least one alert for weight change, atrial tachycardia or ICD shock with a subsequent intervention (N=128). The population was limited to this subset to focus on the costs of changes in management due to RPM. A non-RPM control group was created by cloning each trial patient and simulating their response in the absence of RPM to the conditions that triggered each alert in the trial over one year using a decision tree which computed rates of hospitalization and physician contacts based on literature data. Event and hospitalization costs were estimated per Medicare (CMS) national average payment. **RESULTS:** RPM reduced total costs after the index procedure by $323/patient driven by a reduction in costs related to hospitalization admissions. The decrease in hospital admission cost was partially offset by RPM's increase in physician visits and telephone counseling. **CONCLUSIONS:** RPM has the potential to shift HF-related care from an inpatient setting to office-based care, resulting in cost savings to national payers.

PCV49

## DABIGATRAN ETEXILATE IN PREVENTION OF STROKE FOR NONVALVULAR ATRIAL FIBRILLATION PATIENTS IN TURKISH HEALTH CARE SETTING; A STUDY ON COST CONTAINMENT OF SOCIAL SECURITY INSTITUTION (SSI)

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**OBJECTIVES:** Analysis of cost containment of SSI via use of Dabigatran Etexilate (150MG) versus current standard of care (Warfarin) in prevention of stroke for non valvular atrial fibrillation patients in Turkish health care setting. **METHODS:** All calculations are performed for a group of 1000 patients in each treatment arm per year (Treatment arms; Dabigatran 150MG & Warfarin 5MG – results are represented as "cost per patient per day"). Available clinical data is analyzed for calculation of event costs in each treatment arm (RE-LY study). Local costs of events are included from local literature. Microsoft Excel (2007) is used for calculations and construction of data tables. **RESULTS:** Direct cost of SSI (indirect costs are not included in this analysis) is calculated in each treatment arm. Difference of daily medication cost between Dabigatran Etexilate and Warfarin treatments is +3.12 TL/Day*Patient however, this difference is calculated as -3.34 TL/Day*Patient when medication cost is combined with total treatment cost (costs of thromboembolic&adverse events, INR monitoring, impairment). Dabigatran Etexilate offers a cost containment (saving) of 0.22 TL/Day*Patient in prevention of stroke for non valvular atrial fibrillation patients in Turkish health care setting. **CONCLUSIONS:** Limitation of this study is covering only direct cost data due to lack of local literature on indirect costs. Further analysis may be performed by non-interventional studies, which will define cost containment data via real life cost and effectiveness values. This study demonstrates that Dabigatran Etexilate treatment may sustain cost containment (saving) via reduction of direct cost of SSI with respect to current standard of care, in prevention of stroke in patients with atrial fibrillation in current Turkish health care system.

PCV50

## COST SAVING AFTER SUTURELESS REPLACEMENT IN AORTIC VALVE STENOSIS: RESULTS FROM A PROPENSITY-MATCHED SCORE ANALYSIS IN GERMANY

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**OBJECTIVES:** New sutureless aortic valve prostheses reduce the surgical time. Objective of this study is to asses if shorter operative times may also result in improved patient outcomes and the impact on the hospital costs. **METHODS:** Records of 547 patients that underwent aortic valve replacement with a bioprosthesis from March 2009 and May 2013 were identified. Based on a propensity score analysis 2 groups (Sutureless and Sutured) with 82 matched pairs were created from the 112 patients received a Perceval sutureless bioprosthesis and the 435 patients received a sutured valve. Hospital and follow up outcomes, resources consumption was recorded and compared between groups. Analysis was performed according the National Health Care system perspective. **RESULTS:** Preoperative characteristics and risk scores of the 2 groups were comparable. Hospital mortality was 3.7% in Sutured and 2.4% in Sutureless (p=0.65). Aortic cross-clamp, cardiopulmonary bypass time and operation time were 20%, 23% and 16% shorter in Sutureless (each one p<0.001).Sutureless required less blood transfusion (1.2±1.3 vs 2.5±3.7 units, p=0.005) with a similar incidence of postoperative bleeding (2 patients vs 5, p=0.221). Sutureless had a shorter intensive care unit stay (2.0±1.72vs 2.8±1.3 days, p<0.001), a shorter hospital stay (11.4±3.9 vs 17.3±13.7 days, p<0.001) and a shorter intubation time (9.5±4.6 vs 16.6±6.4 hours, p<0.001). A neurological event was recorded in 3 sutureless patients and in 6 sutures (p=0.248). Sutured has an higher incidence of postoperative atrial fibrillation, pleura effusions and respiratory insufficiency (p 0.015, 0.024 and 0.016, respectively). Reduced risk of post operative complication resulted in a dramatic reduction of resources consumption in the sutureless group allowing a saving of 50% of the complication related resource use. **CONCLUSIONS:** Shorter procedural times resulting from sutureless aortic valve replacement are associated with better outcomes and lower costs. Sutureless valve may be considered as the first-line treatment for patients underwent aortic valve replacement with a bioprosthesis.

PCV51

## TRENDS IN THE COST-EFFECTIVENESS OF STROKE CARE

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**OBJECTIVES:** To assess the annual average costs and quality adjusted life years (QALYs) of stroke services in the UK before and after the introduction of the National Stroke Strategy (period: 2006-2011). **METHODS:** Data from the South London Stroke Register (SLSR) from 2006 to 2011 were used to populate a discrete event simulation (DES) model. Parameters, such as daily probability of survival and length of stay, included in the model were calculated by using Cox proportional hazard model and multivariate regression methods respectively. Barthel Index was used as proxy for measures of quality of life. Treatment costs were introduced in the model in order to calculate the total costs based on resource usage. The model simulated the stroke care delivery from stroke onset with 10-year follow up. Average cost and QALYs were calculated for every year from 2006 to 2011. **RESULTS:** The average total costs per treating a stroke patient decreased from £30,745 to £27,086 between 2006 and 2011 (p-value for trend < 0.001). This is mainly as a result of savings achieved in the inpatient phase due to a shorter LOS and a higher proportion of patients with mild disability. Per patient QALY's also increased from 2.2 to 3.1 during the same period (p-value for trend < 0.001), this is due to a higher proportion of patients having access to better organised stroke care. **CONCLUSIONS:** This study has demonstrated that stroke services in the UK have improved their value for money over time with constant gains in efficiency. The use of DES together with SLSR data allows the testing of the costs and outcomes of a whole stroke provision system or components of it and provide opportunities for retrospective (as done in this study) as well as prospective analysis (in the case of health technology assessment studies).

PCV52

## DISCRETE EVENT SIMULATION MODEL OF PRIMARY PREVENTION OF STROKE: BENEFITS OF INCREASING COVERAGE TO UNSERVED PATIENTS

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**OBJECTIVES:** To assess the impact of a hypothetical increase in the stroke primary preventive care coverage in the UK. Productivity gains, using resource utilization as proxy, and monetary benefits were calculated. **METHODS:** Data from the South London Stroke Register (SLSR) from 2009 to 2011 were used to create a hypothetical cohort to populate a discrete event simulation (DES) model. The model simulated the stroke care delivery from primary preventive stroke care until discharge from stroke unit or general medical ward. Primary preventive care was defined as taking medications to control hypertension, high-cholesterol and also anticoagulants in patients with atrial fibrillation in order to prevent strokes. Treatment costs were introduced in the model in order to calculate the total costs based on resource usage. Hypothetical scenarios consisting in 10% incremental increase of primary preventive care for high-risk factors were tested. The reduction of strokes was given by relative risk reduction ratios extracted from clinical trials. **RESULTS:** Our findings indicate that for every 10% increase in the number of patients undergoing primary prevention treatment the number of strokes would be reduced by 1.2%. In a scenario where 50% of the untreated patients receive primary prevention 7,232 strokes would be reduced per year. For the same scenario, 47 hyper acute beds, 359 acute beds and 47 general medical ward beds could be saved in average. In total this would yield in £42.2 million of savings in the inpatient phase of stroke care. **CONCLUSIONS:** Our findings suggest that by enhancing primary prevention of stroke care in the UK, significant benefits can be achieved in terms of reductions in resource consumption and monetary savings as a result of averted strokes. The generation and analysis of these retrospective hypothetical scenarios, using real-world evidence on stroke, help evaluate policy choices in stroke care in the UK.

PCV53

## THE BURDEN OF RESISTANT HYPERTENSION IN 5 EUROPEAN COUNTRIES

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**OBJECTIVES:** Greater than 40% of Europeans over age 25 have hypertension, and 10% of those have medication resistant hypertension (RHT). In EU5 (France, Germany, Italy, Spain, UK) that results in 9.4 million persons with blood pressure above goal, despite treatment with 3+ medications. These patients have a greater than 30% risk of cardiovascular disease (CVD) over 10 years and an increased risk of end-stage renal disease (ESRD). This analysis sought to quantify the burden of RHT