

separate models to calculate cost of illness for each selected diseases. Medical resources included hospital stays, outpatient visits, ambulance service and rehabilitation. **RESULTS:** Obesity-related and overweight-related expenses incurred by the state for treatment and management of patients were amounted to 10.2 billion rubles (\$ 190.5 million) for stroke, 7.6 billion rubles (\$ 141.9 million) for heart attack and 346.3 billion rubles (\$ 6.5 billion) for diabetes mellitus. **CONCLUSIONS:** Obesity and overweight associated with significant economic burden on Russia's health care system. There is a striking direct relationship between the cost of care on stroke, heart attack, diabetes mellitus and obesity and overweight that leading to increasing significant economic and social losses.

PCV77

MEDICAL COSTS AND RESOURCES CONSUMPTION IN PATIENTS WITH ATRIAL FIBRILLATION: AN ITALIAN OBSERVATIONAL STUDY

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OBJECTIVES: The prevalence of atrial fibrillation (AF), a common form of cardiac arrhythmia, is rapidly rising in the developed world. Though several studies addressed the cost of illness, recent improvements in the disease management may have affected per capita medical resources consumption and costs, therefore it is desirable to provide updated estimates. This naturalistic study aimed at estimating costs and resource consumption related to AF from the perspective of the Italian Healthcare System in a large cohort of hospitalized cases. **METHODS:** Using healthcare administrative databases (HADB) of Lombardy, a region in Northern Italy (10 million dwellers), we identified the cohort of residents who underwent a first hospitalization with a diagnosis of AF between 2003 and 2009, after a wash-out period of 3 years. We followed them until 2010, death or emigration, extracting from HADB information on hospitalizations, drug prescriptions and outpatient visits with related direct costs. We estimated mean annual resources consumption per 100 subjects and mean annual per capita cost through the Bang and Tsiatis approach. **RESULTS:** We recruited a cohort of 143,022 subjects (49% males), with a mean age of 75 years (± 12 standard deviation) and a mean survival time of 5 years (95% confidence interval (CI): 5.0; 5.1) from baseline. Mean annual per-capita expenditure was 4,008€ (95%CI: 3,981; 4,039), of which 65.2% was absorbed by hospitalizations, 18.5% by drug prescriptions and 16.3% by outpatient visits. We estimated 84.7 hospital admissions, the main driver of costs, per 100 subjects per year (95%CI: 83.8; 85.6), of which 17.0 (95%CI: 16.8; 17.2) with an AF diagnosis. **CONCLUSIONS:** In line with literature, our results highlighted a high burden of AF, with large per capita healthcare expenditures and a high number of hospitalizations. Since AF has been described as an epidemic, increased attention should be devoted to the management of such disease.

PCV78

COSTS OF CARDIOVASCULAR (CV) EVENTS IN THE UNITED KINGDOM (UK) USING REAL-WORLD DATA

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OBJECTIVES: To estimate direct medical costs of cardiovascular (CV) events in the UK: myocardial infarction (MI), ischemic stroke (IS), heart failure (HF), transient ischemic attack (TIA), unstable angina (UA), and revascularisation. **METHODS:** We used 2006-2012 Clinical Practice Research Datalink and Hospital Episode Statistics data to identify individuals with their first and, if present, repeated CV-related hospitalisations. Patients > 18 years receiving lipid-modifying therapy within 180 days before the CV event were followed for 36 months, death, or loss to follow up. Patients were classified as CV Low/Moderate Risk, CV High Risk and CV Event History. Baseline (12 months before first CV event), acute (first 6 months afterward) and long-term costs (subsequent 30 months, annualised) were estimated by applying 2014 UK costs to drugs, hospitalisations and visits. Incremental CV event-related costs were calculated as the difference from baseline, reporting means across all cohorts and ranking cohort-specific means. **RESULTS:** There were 6,408 patients in CV Low/Moderate Risk, 17,685 in the CV High Risk, and 5,274 in CV Event History cohorts. Across the three cohorts, mean incremental acute CV event costs for revascularisation were £5,669 (£5,468-£5,823), MI £4,277 (£3,707-4,573), IS £3638 (£3,472-4,572), HF £2,635 (£ 2390-£3461), UA £2,229 (£2063-£2489) and TIA £1,572 (£1441-£1814). Mean incremental long-term costs were as follows: HF £1,129 (-£37-£2829), MI £959 (£515-£1385), IS £953 (£682-£1072), TIA £793 (£340-£1692), UA £373 (£319-£677), and revascularisation -£221 (-£411-£599). Costs of CV Low/Moderate Risk cohort ranked the lowest; costs of CV Event History were the highest. Hospitalisation costs were the primary drivers for both periods. **CONCLUSIONS:** Revascularisation and MI are the costliest CV events. The costs are the highest in the acute phase during the first 6 months after a CV event and generally remain higher compared with pre-event period. Using real-world evidence, the economic burden of CV patients in the UK is substantial.

PCV79

ESTIMATING THE ECONOMIC BURDEN OF STROKE IN SOUTH INDIA: A COST-OF-ILLNESS STUDY

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OBJECTIVES: The recently-observed trend towards the stroke patients in raises the economic concerns. Cost-of-illness (COI) analysis is the main method of providing an overall view on the economic impact of a disease. The main objective of this study is to estimate the economic burden of stroke. **METHODS:** The

economic burden of stroke was estimated from a societal perspective with an incidence approach. Data were collected from clinical registries and 100 patients were included. In the cost calculations, both direct and indirect costs were estimated. **RESULTS:** Men (78%) consumed more acute care in hospitals, than the women (22%). Younger patients (59%) brought a significantly higher burden on society compared with the older patients due to the loss of productivity and the increased use of resources in health care. 41% of patients who have hypertension and 45% of patients with alcohol and smoking habits have more prone to stroke rather than the patients with other habits and comorbidities. 56% of patients have the hospital stay of 5-10 days and 52% are using 4-7 medicines per day. From the study results, average direct medical costs and direct nonmedical costs and Indirect costs were found to be 2819, 705 and 754 rupees. In essence, majority of the costs for stroke care fall on the hospital, than the long-term care and informal care costs and productivity loss. **CONCLUSIONS:** The result of this study can be used for further development of the methods for economic analyses as well as for analysis of improvements and investments in health care. This aspect highlights the enormous importance, for our healthcare service, to invest more in prevention. This cost analysis highlights the importance of clinical pharmacist to set up significant prevention programs on selected, high-risk population to reduce the economic burden of stroke, which is mostly attributable to hospital and inpatient rehabilitation costs immediately after the acute episode.

PCV80

SYSTEMATIC LITERATURE REVIEW OF DIRECT HEALTH CARE COSTS FOR CARDIOVASCULAR EVENTS AMONG EUROPEAN PATIENTS WITH DYSLIPIDEMIA OR HIGH CARDIOVASCULAR RISK

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OBJECTIVES: To review the direct patient-level costs of selected cardiovascular events (CVEs): unstable angina, myocardial infarction (MI), cardiac revascularization, heart failure, ischemic stroke, acute coronary syndrome in Europe. **METHODS:** A systematic literature review was conducted for the period between January 2000 and March 2015. MEDLINE, EMBASE, ECONLIT, and NHS Economic Evaluation Database, conference abstracts from the American Heart Association, American College of Cardiology, European Society of Cardiology, European Atherosclerosis Society, International Society of the Pharmacoeconomics and Outcomes Research and relevant reference lists were searched to identify published articles reporting direct costs of one or more CVEs (angina, myocardial infarction, cardiac revascularization, heart failure, ischemic stroke, acute coronary syndrome) in Europe (United Kingdom, Germany, Spain, France, Italy, Denmark, Finland, Iceland, Norway, Sweden, Belgium, Switzerland, The Netherlands). Two reviewers independently assessed studies against inclusion criteria and abstracted cost estimates; discrepancies were resolved through discussion or by third reviewer. Studies were included if they reported patient-level direct medical costs of one or more CVE(s) from a primary economic analysis or cost-effectiveness model among adults with identified dyslipidemia or elevated Low Density Lipoprotein-Cholesterol. Costs as reported in each study were inflated to 2015 values. **RESULTS:** Forty-eight studies were included for abstraction. Cost estimates for at least one event were found in twelve of the thirteen specified countries listed in the search strategy. Annual costs of care were highest for stroke (€958-€10,334), revascularization procedures (€211-€12,383) and MI (€558-€17,262). The highest cost acute events were revascularization procedures, specifically CABG (€10,814-€25,587), and ischemic stroke (€3,686-€7,978); angina (€935-€5,214) and heart failure (€1,106-€4,905) acute costs were relatively lower than other conditions. **CONCLUSIONS:** The findings of this study highlight the wide variation in the sources and populations used to populate economic models in the literature and the substantial costs of CVEs despite event type or country of origin.

PCV81

ESTIMATING THE BURDEN OF DIABETES TO THE FRENCH NATIONAL HEALTH INSURANCE

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OBJECTIVES: The aim is to assess for 2012 the direct and non-directly cost of diabetes from a public payer perspective using a new (bottom-up) method and the French health insurance medico-administrative database (SNIIRAM). **METHODS:** Using information about 60 millions of individuals from the general scheme insurance database (86% of the 69 million individuals insured by all French insurance schemes), we identified people who received care for diabetes if they had an ICD-10 diagnosis for diabetes as a long-term chronic disease or at least 3 annual reimbursements for anti-diabetic drugs. Costs of all reimbursed expenditures (outpatient/inpatient care, disability/sickness benefits) were extracted per individual. To estimate the burden of diabetes, we identified expenditure items which were directly attributable to diabetes (anti-diabetic drugs, medical devices, hospitalization with an ICD diabetes code). For other expenditures, we used an incremental approach and also econometric model by estimating the additional cost due to diabetes (by age and gender) between the diabetic and the non-diabetic population. **RESULTS:** Among 69 million individuals insured by all insurance schemes, 3.3 million (5%) had diabetes. The overall diabetic population expenditure accounted for 22 billion, 15% (of the total expenditures reimbursed by the national health insurance). Overall, 11.4 billion (52%) euros were considered as related to diabetes care. Reimbursements directly attributable to diabetes accounted for 2.6 billion (23% of the 11.4 billion euros) and other costs, mostly related to complications, for 8.8 billion (77%). Inpatient care represented the main part of the overall cost of diabetes care (22%) together with drugs (20%) and medical auxiliaries (15%). **CONCLUSIONS:** Care for diabetes complications and additional treatments for diabetic people account for the highest part of the costs of diabetes care. The prevention of acute illness