episodes involving inpatient care and complications could lower substantially the burden of diabetes.

PCV82
REAL WORLD EVIDENCE AND COSTS OF CHRONIC HEART FAILURE: FINDINGS FROM THE ARNO DATABASE
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OBJECTIVES: Patients with chronic heart failure (HF) in controlled trials do not fully represent real population followed in clinical practice. We wanted to give real world picture of epidemiology and hospitalization characteristics of patients with HF, by using a large administrative database of nearly 500,000 subjects. Evaluate costs of healthcare related costs over 1 year follow-up was performed. METHODS: Data come from ARNO database that includes in-habitants of 7 Local Health Authorities of the North of Italy. NHIS (National Health Service (NHS). Patients were selected when admission for HF occurred over period of 5 years (January 1, 2008 to December 31, 2012). To confirm diagnosis, all patients discharged alive should be prescribed typical treatment for HF. Clinical characteristics co-morbidities, treatment, need for rehospitalization were evaluated. Total costs for NHS were calculated as hospitalizations, treatments and out-of-hospital speciality visits or examinations.

RESULTS: 54,059 patients (2.2%) were admitted for HF. The great majority was admitted in Internal Medicine / Geriatric Departments (69.5%). Of 54,059 patients, 41,413 were discharged alive and prescribed HF treatments. Need for rehospitalization occurred frequently: 56.6% of patients was admitted at least once in 1-year follow-up discharging, cardiovascular admissions accounted for just 51% of the total hospitalizations. All-cause 1-year mortality was 18.9%. Patient with HF generate a cost per year to NHS 7,429 (11,867 if first admission included). Cost per year were as follows: new hospitalization 5,165, drug prescriptions 2,657, visits/examinations 8%. CONCLUSIONS: Real world evidence in HF provides findings different from randomized clinical trials. Patients are older and more frequently females. Rate of use of treatments is not optimal. Furthermore remains high the rate of hospitalizations are frequent in nearly half cases, re-hospitalizations are due to non CV reasons, documenting relevant role of advanced age and co-morbidities. Costs for NHS are mainly driven by hospital costs.

PCV83
RESOURCE UTILIZATION AND TREATMENT COSTS OF STROKE IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION IN SPAIN
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OBJECTIVES: Atrial Fibrillation (AF) is the most common arrhythmia in Europe. AF increases the risk of death and cost of care, and is the second leading risk factor for stroke. The study objective was to determine the healthcare resource utilization and costs (HCRU) and treatment costs of non-valvular AF (NVAF) patients with and without stroke. METHODS: Retrospective cohort study of patients newly diagnosed with NVAF from January 2003 to December 2013. Patients were identified using medical diagnostic codes ICD-9 codes and treatment data (ATC code in the Claims Database of Groupes Servies Assistand database). HCRU included overall hospital admissions, outpatient consultations, home-based care, laboratory tests, and pharmaceutical treatments. Differences in annualized total costs (95% CI) per patient were calculated in € (2014 tariffs) by estimating HCRU in propensity-score matched cohorts of NVAF patients with and without stroke. RESULTS: Overall, 3,052 patients with a NVAF in Spain were identified in the database at least during the follow-up period. Total cost of stroke event after NVAF diagnosis. Median follow-up time of patients with stroke was 519 days. In the first year after stroke, there was on average an incremental cost of 0.9 hospital admissions per patient, 0.9 additional ER admissions, 2.9 additional hospital outpatient care visits, 2.7 additional consultations at other sites, 8.2 additional procedures/laboratory tests, and 265 additional DDSs of anticoagulant. The incremental total cost of stroke per patient was 12,085€ (12,069-12,101) in the first year, and 6,384€ (5,377-6,391) for the entire follow-up period. Total cost of stroke per patient was 4.4 times higher than non-stroke patients during the first year after stroke, and 2.9 times higher for the entire follow-up. CONCLUSIONS: In Spain, NVAF patients with stroke consumed additional HCRU and treatment costs compared to patients without stroke. The burden of stroke was particularly important in the first year after stroke, and was the main drivers of the increased HCRU and costs.

PCV84
AN EPIDEMIOLOGICAL EVALUATION OF THE INCIDENCE OF DEEP VENOUS THROMBOSIS AND PULMONARY EMBOLISM (DVT/PE) WITH HIP AND KNEE REPLACEMENT SURGERY AND OF ITS IMPACT ON THE AVERAGE LENGTH OF STAY AND HOSPITALIZATION COST
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OBJECTIVES: Various published sources report an incidence of symptomatic deep venous thrombosis (DVT) and pulmonary embolism (PE) in patients undergoing hip or knee replacement ranging between 0.3% and 2.3%. This study aimed at assessing the in-hospital incidence of DVT/PE after major orthopaedic surgery in Belgium and the impact of these complications on the length and hospitalization costs using retrospective data. METHODS: The incidence of DVT/PE, the average hospitalization costs (including length of stay (LOS)) among patients hospitalized for hip or knee replacement surgery were estimated using the longitudinal IMS Hospital Disease Database (year 2013), including data (diagnoses, procedures, costs) on 24% of Belgian hospital beds. Stays were searched based on ICD-9-CM codes corresponding to hip replacement (R1.51-81.52-81.53) and knee replacement (R1.54-81.55). Occurrence of DVT/PE was identified with ICD-9 codes 431.1-451.2-453.4. The impact of a DVT/ PE episode was analyzed through matched case-control analysis in 9850 patient years. RESULTS: 7,160 stays with hip replacement and 6,223 stays with knee replacement were retrieved in the database. The number of stays with a DVT/PE episode was respectively equal to 22 and 43 within the two subgroups, resulting in an incidence of 0.3% of patients with hip replacement and 0.6% in patients with knee replacement. LOS of patients with a DVT/PE episode was more than twice as high after both hip (35.8 vs. 13.5 days; p < 0.001) and knee (31.2 vs. 9.9 days; p < 0.001) replacement. Hospitalization costs were more than double in case of DVT/PE complication (21,557 vs. 12,721 in hip replacement; 24,953 vs. 11,298 in knee replacement; p < 0.001 in both cases). CONCLUSIONS: The incidences of symptomatic DVT and PE reported in the literature could be confirmed based on this retrospective search. The impact of occurrence of DVT/PE is dramatically both LOS and hospitalization costs in patients undergoing hip or knee surgery.

PCV86
DIRECT TREATMENT COSTS OF STROKE IN TURKEY
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OBJECTIVES: Stroke is the second leading cause of death globally and the survivors are faced with long-term disability. Stroke survivors are also under the risk of recurrent events, especially on health costs. Thus, evaluating indirect costs of stroke studies are of special importance to healthcare policy makers in order to predict and take precautions for stroke in their health care system. The aim of this study was to assess the in-hospital incidence of DVT/PE and to determine the direct and indirect cost of stroke from a payer perspective in Turkey. METHODS: A multi-dimensional approach was used to estimate the direct costs of stroke in Turkey. First a large dataset covering 5 years data for 2000 emergency department stroke admissions from a university hospital was analyzed. The data set covered information on the severity of the disease, sociodemographic status of the patients and also the medical procedures applied during the hospital stay. Second, the actual invoices of the same patients hospitalized in 2014 were analyzed. Third, a form was designed to explore the treatment strategies, medical procedures and resource requirements of stroke patients and inpatients. The form was applied to an expert panel and the resources determined by the panel were priced by the Social Security Institution’s official price list. RESULTS: According to the expert panel part of the study, annual outpatient and monitoring costs were 1,807,58 TL and intensive care and inpatient costs were 5,636,52 TL. The total annual cost of stroke per patient was calculated as 7,444,11 TL in Turkey. CONCLUSIONS: The study showed that stroke treatment and associated costs contribute significantly to the healthcare budget. Outpatient and monitoring costs constituted 52% of total costs whereas inpatient costs constituted 48% of total costs.
clinical course of DVT may also be complicated by recurrent episodes of DVT, the development of post-thrombotic syndrome, or chronic venous insufficiency.

**PCV88**

**ECONOMIC BURDEN OF ACUTE MYOCARDIAL INFARCTION IN VIETNAM**

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**OBJECTIVES:** Vietnam spends 6% of its GDP to health care. In context of insufficient evidence on quantifying the economic burden of cardiovascular disease in Vietnam, we conducted a study on the costs of Acute Myocardial Infarction (AMI). Costs were calculated from the perspective of the healthcare system and patients, including health insurance providers and patients.

**METHODS:** Data was extracted from a database of a regional hospital in Vietnam. All patients with the single code I21 corresponding to the International Classification of Disease 10 were included in the study. Costs were calculated in year 2013. Out-of-pockets payment was quantified as the net of health insurance (HI) reimbursement and actual payments. Costs were calculated in year 2013. Out-of-pockets payment was quantified as the net of health insurance (HI) reimbursement and actual payments. The mean costs of AMI were US$2,503 (95% CI: €1,900). Costs were higher in the group requiring percutaneous coronary intervention than in the group treated medically (€3,377 vs. €2,503).

**RESULTS:** 89 patients with AMI were included. There was an independent significant difference in costs among the following groups: PCI vs. no PCI (€8,483 for PCI vs. €6,938 for no PCI) and STEMI vs. NSTEMI (€10,620 for STEMI vs. €8,763 for NSTEMI). The mean length of stay (LOS) was 7.7 days in the PCI group vs. 10.2 days in the medical treatment group.

**CONCLUSIONS:** The economic burden of AMI was US$2,503 in Vietnam, which was significantly higher in the group undergoing PCI than in the group treated medically. Treatment decisions should be based on cost-effectiveness in addition to clinical outcomes.

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**PCV91**

**AN EPISTEMOLOGICAL EVALUATION OF THE IMPACT OF PERCUTANEOUS CORONARY INTERVENTIONS ON THE HOSPITALIZATION COST, LENGTH OF STAY AND MORTALITY OF PATIENTS HOSPITALIZED WITH ACUTE CORONARY SYNDROMES**

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**OBJECTIVES:** Randomized clinical trials comparing percutaneous coronary interventions (PCI) with conservative treatment are recommended for acute coronary syndromes.

**RESULTS:** In-hospital mortality in STEMI (9.342 vs. 8.165, p<0.001) and NSTEMI (4.7 vs. 0.001) were lower in patients with PCI. Long-term mortality was significantly lower in patients with PCI (15.6% vs. 20.2%, p<0.001). PCI did not significantly improve outcomes in patients with non-ST elevation myocardial infarction (NSTEMI) compared to conservative treatment.

**CONCLUSIONS:** PCI is associated with lower mortality in acute coronary syndromes. Further research is needed to evaluate the long-term benefits of PCI in these patients.

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**PCV99**

**A COMPARISON OF TWO LOW-MOLECULAR-WEIGHT HEPARINS (LMWHS) IN TREATMENT OF CHRONIC LOWER LIMB THROMBOEMBOLIC PULMONARY HYPERTENSION (CTEPH)**

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1IMS Brojek, Mississauga, ON, Canada, 2Novartis Pharmaceuticals Canada Inc., Darvoll, QC, Canada

**OBJECTIVES:** Chronic heart failure (CHF) affects more than 600,000 Canadians, resulting in thousands of hospitalizations and deaths each year. This study’s objective was to compare two of the most commonly used low-molecular-weight heparins (LMWHs) in the treatment of chronic lower limb thromboembolic pulmonary hypertension (CTEPH).

**RESULTS:** The cost of treating VTE or DVT is lower when administering enoxaparine instead of daraparin. The difference in cost was statistically significant (€507 per person for VTE and €230 per person for DVT). The cost of treating VTE or DVT is lower when administering enoxaparine instead of daraparin. The difference in cost was statistically significant (€507 per person for VTE and €230 per person for DVT).

**CONCLUSIONS:** The use of enoxaparine in the treatment of CHF is associated with a lower economic burden compared to daraparin, with potential cost savings of up to €507 per person for VTE and €230 per person for DVT.

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**A389**

**THE COST OF ACUTE CARE HOSPITALIZATIONS ASSOCIATED WITH CHRONIC HEART FAILURE IN CANADA**

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1IMS Brojek, Mississauga, ON, Canada, 2Novartis Pharmaceuticals Canada Inc., Darvoll, QC, Canada

**OBJECTIVES:** Chronic heart failure (CHF) affects more than 600,000 Canadians, resulting in thousands of hospitalizations and deaths each year. This study’s objective was to compare the economic burden of two drugs used for the treatment of chronic lower limb thromboembolic pulmonary hypertension (CTEPH).

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