the need to establish effective strategies for AF. Clinical outcomes from the ATHENA study adapted to Slovak conditions show the actual potential of dronedarone to be a cost-effective way in reducing AF complications and decreasing health care expenditures.

PCV58

THE DIAGNOSTIC BENEFIT OF STRESS TEST PRIOR TO CARDIAC MULTI-SLICE COMPUTED TOMOGRAPHY IN PATIENTS WITH SUSPECTED CORONARY ARTERY DISEASE: CLINICAL AND ECONOMIC OUTCOMES FROM THE EMILIA-ROMAGNA MSCT REGISTRY

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OBJECTIVES: Cardiac Multi-Slice Computed Tomography (MSCT) has been demonstrated as a valid diagnostic tool for coronary artery disease (CAD) especially due to its higher comparative accuracy. Consequently, there is mutual agreement on its use following a non-interpretable or equivocal stress-test (exercise, perfusion or stress-echo) result; however, its frequent use as first-step investigation contributes to the controversy on which strategy really maximizes patient outcomes. Using data of a regional registry, we investigated the optimal application of MSCT in patients with suspected CAD. METHODS: During 2007, 366 patients with suspected CAD or stable angina underwent MSCT in six different public structures in Emilia-Romagna; after applying exclusion criteria (previous hospitalization for Acute Myocardial Infarction and/or revascularization; MSCT performed in inpatient setting), 330 subjects (209 with and 141 without a previous stress-test result, respectively) were considered eligible. The study evaluated the cost of test, such as death, hospitalizations, diagnostic procedures, visits, and cardiovascular drugs utilization were tracked for one year. Direct costs were evaluated from the perspective of the Regional Health Service (RHS). RESULTS: Except for hyperlipidemia (p = 0.0038) and diuretics consumption (p = 0.006), all baseline characteristics were similar between the two groups. No relevant differences were found in all endpoints except for the average number of cardiovascular-related hospitalizations (0.46 vs. 0.33; p < 0.0013), which was significantly lower in the stress-test-MSCT group. Notably, hospitalizations alone accounted for 90% of total health care expenditures ($1,018,054 for all 350 patients). The sensitivity analysis (based on 1000 bootstrap samples) indicated a mean cost difference of $513 ± 22 (CI 95%) and a mean hospitalizations difference of 0.13 ± 0.0031 in favor of the stress-test-MSCT strategy (0.46 vs. 0.33; p = 0.66), which showed a probability of being cost effective of 0.86 (WTP = $10,000). CONCLUSIONS: Using MSCT after stress-test is likely to reduce the risk of hospitalization and additionally provides good value for money from the perspective of the RHS.

PCV59

EFFECTIVENESS AND BUDGET IMPACT ANALYSIS OF BETA BLOCKERS FOR CHRONIC HEART FAILURE PATIENTS IN SPAIN

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OBJECTIVES: Chronic heart failure (CHF) is a major health issue because of its growing prevalence, morbimortality and associated resource consumption. Beta blockers have been shown to be effective and cost-effective therapies for CHF. The aim is determining what beta blocker constitutes the most efficient therapy for CHF patients in Spain. METHODS: Systematic review of primary (clinical trials) and secondary (meta-analyses, clinical practice guidelines, economic assessments and reports from independent local agencies) evidence on beta blockers for CHF issued before April 2009. Once that efficacy of each beta blocker was established, local drug databases were accessed in order to estimate the updated annual cost of each therapy and daily dose in Spain. RESULTS: Given their similar efficacy [death RR: bisoprolol: 0.66, p < 0.0001; metoprolol: 0.66, p < 0.0001; carvedilol: 0.65, p < 0.005; nebivolol: 0.88, p = 0.21] and safety profiles, international clinical guidelines on Cardiology recommend bisoprolol, metoprolol, carvedilol and nebivolol as first choice therapies for CHF (class I and level of evidence A). Significant annual drug cost differences for bisoprolol were found in all endpoints except for the average number of cardiovascular-related hospitalizations (0.46 vs. 0.33; p = 0.66), which was significantly lower in the stress-test-MSCT group. Notably, hospitalizations alone accounted for 90% of total health care expenditures ($1,018,054 for all 350 patients). The sensitivity analysis (based on 1000 bootstrap samples) indicated a mean cost difference of $513 ± 22 (CI 95%) and a mean hospitalizations difference of 0.13 ± 0.0031 in favor of the stress-test-MSCT strategy (0.46 vs. 0.33; p = 0.66), which showed a probability of being cost effective of 0.86 (WTP = $10,000). CONCLUSIONS: Using MSCT after stress-test is likely to reduce the risk of hospitalization and additionally provides good value for money from the perspective of the RHS.

A323

PCV60

BUDGET IMPACT MODEL FOR DETERMINING THE HOSPITAL COSTS OF INTRODUCING PRASUGREL FOR THE LONG TERM TREATMENT OF ACUTE CORONARY SYNDROME TREATED BY PERCUTANEOUS CORONARY INTERVENTION IN FRANCE


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OBJECTIVES: For patients with acute coronary syndrome (ACS) treated with percutaneous coronary intervention, a 12-month dual anti-platelet therapy (aspirin plus prasugrel) is recommended. A phase III clinical trial (TRITON) in ACS patients with planned PCI demonstrated superiority of prasugrel versus clopidogrel on the primary composite endpoint (myocardial infarction, stroke, cardiovascular death) but also higher bleeding risk. This model was designed to estimate the impact on the hospital budget of the national health insurance of substituting prasugrel to clopidogrel.

METHODS: The budget impact model was based on index and recurrent hospital stays related to cardiovascular and bleeding causes from the economic cohort of TRITON (N = 7091) with an mean of 380 days of follow-up. A specific DRG code was attributed to each stay and transcoded to French DRG. A weighted cost was calculated based on public and private French DRG official tariff (2007), including an average cost for stents and intensive care unit costs. In-hospital costs of thienopyridine use were not included in the analysis. The time horizon was 1-year. Budget impacts were calculated for two groups, A) Patients with history of transient ischemic attack (TIA) and stroke, B) Patients without TIA/stroke and weight >60 kg and <75 years-old. RESULTS: For Group A the costs for all patients for one year were $25,719,447.48 for prasugrel and $26,123,037.37 for clopidogrel, for Group B they were respectively $20,897,133.23 and $21,096,576.42. Predominant differences were on costs related to recurrent hospital stays (respectively for A: $5,501,347.76 and $6,053,118.09; B: 4,354,938.17 and 4,827,315.74). Substituting prasugrel to clopidogrel would result in daily savings of 0.1% per patient B: $0.46 per patient. CONCLUSIONS: This budget impact model showed that prevention events with prasugrel generates savings that could offset to some extent potential price differences with clopidogrel.

PCV61

COST OF EXERCISE TRAINING AND ITS IMPACT ON MEDICAL RESOURCE USE AND COSTS: RESULTS OF HF-ACTION TRAIL

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OBJECTIVES: The HF-ACTION study was a controlled trial to evaluate efficacy and safety of exercise training in patients with heart failure. A prospective economic evaluation was planned alongside the trial to evaluate resource use and costs associated with exercise training. METHODS: Between April 2005 and February 2008, 123 participating centers enrolled 2562 patients (mean age 72±10, 314 men and 1948 women) randomly assigned 2331 heart failure patients with NYHA Class II to IV to usual care plus exercise training, consisting of 36 supervised sessions followed by home-based training, versus usual care alone. Data on medical resource use and hospital bills were collected throughout the trial. Intervention-related resource use was collected using patient-level data from the trial, administrative records, and published unit costs. Costs of resource use were compared using negative binomial regression models. Confidence intervals for cost differences were derived using nonparametric bootstrap. RESULTS: Mean follow-up was 2.5 years in both groups. There were 2297 hospitalizations in the exercise training group (n = 1159) and 2332 in the usual care group (n = 1172). The number of inpatient days was 13.6 (SD = 27.0) and 15.0 (SD = 31.4) days in the exercise training and usual care groups, respectively (p = 0.21). Additional measures of medical resource use, including urgent care visits, outpatient visits and procedures, home IV therapy, skilled nursing and rehabilitative care were compared between groups, with the exception that fewer patients in the exercise training group underwent high-cost inpatient procedures including heart transplant and/or placement of a left ventricular assist device (n = 44 [3.7%] vs. n = 31 [2.7%], p = 0.14). Total direct medical costs were estimated at $59,837 (SD = 81,488) in the exercise training group and $56,177 (SD = 92,749) in the usual care group (95% CI for difference: $-12,753 to $1,847). Direct cost of exercise training was estimated at $1006 (SD = 337). CONCLUSIONS: Exercise training had little systematic impact on medical resource use overall, but the cost of exercise training may have been offset through a reduction in high-cost procedures.

PCV62

PULMONARY ARTERIAL HYPERTENSION (PAH) COST OF ILLNESS IN THE U.S. PRIVATELY-INSURED POPULATION

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OBJECTIVES: Estimate annual direct costs for privately-insured U.S. pulmonary arterial hypertension (PAH) patients and matched controls. METHODS: From a privately-insured claims database (>8 million beneficiaries, 2002–2007), 951 PAH