ECHOCARDIOGRAPHY (STRESS ECHO), EXERCISE STRESS NUCLEAR SCINTIGRAPHY (STRESS NUCLEAR), OR EXERCISE TREADMILL TEST (ETT) STUDY. THE MODEL WAS DEVELOPED TO EVALUATE THE POTENTIAL COST SAVINGS OF CORONARY CTA VS. CARDIAC CATHETERIZATION IN PATIENTS WHO HAVE AN ABNORMAL OR NON-DIAGNOSTIC TEST RESULT. RESULTS: A STRATEGY UTILIZING CORONARY CTA TO EVALUATE PATIENTS WITH AN ABNORMAL OR NON-DIAGNOSTIC STRESS ECHO, STRESS NUCLEAR, OR ETT STUDY WAS COST-SAVING COMPARED TO A CONVENTIONAL STRATEGY OF CARDIAC CATHETERIZATION FOR THESE PATIENTS, UP TO A CAD PREVALENCE RATE WITHIN THE STUDY POPULATION OF 12–72%, DEPENDING ON THE COSTS ASSUMPTIONS USED IN THE MODEL. CONCLUSIONS: AN EVALUATION STRATEGY THAT USES CORONARY CTA FOR THE PRIMARY EVALUATION OF PATIENTS WITH ABNORMAL ETT, STRESS ECHO, OR STRESS NUCLEAR TEST MAY REDUCE COSTS IN A PATIENT POPULATION WITH A LOW TO INTERMEDIATE PREVALENCE OF CAD.

PCV67

CLINICAL CHARACTERISTICS, MEDICATION AND COSTS IN ACUTE HEART FAILURE PATIENTS IN THE CZECH REPUBLIC

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OBJECTIVES: Acute heart failure (AHF) is a life threatening disease which includes variable causes and complications. The aim was to assess clinical characteristics, medication and costs during hospitalization in patients with AHF. METHODS: Patients hospitalized in a cardiological dpt. of the Faculty Hospital Brno in January 2005–July 2007 were classified according to the Guidelines on the diagnosis and treatment of AHF by the European Society of Cardiology and their medication was followed at admission and during the stay. In-patient care costs include flat rate of admission, stay and medicinal procedures. (1€ = 25 CZK) RESULTS: In total, 1213 patients (57.5% male, mean age 72.5 years) with AHF were analyzed. The chronic medication involved diuretics in 51%, less than half used antiplatelet drugs, beta-blockers and ACE-I; statins (28.3%), nitrates (23.6%), digoxin (21.8%). Positive inotropics were indicated in acute state: norepinephrine (20.4%), dopamine (11.4%), dobutamine (10%), epinephrine (9.5%) and levosimendan (4.8%). New-onset AHF (57%) was more common than decompensated AHF and was concerned with higher costs. AHF with mild signs and symptoms prevailed (49.3%), pulmonary oedema and cardiogenic shock were both in 13%. Total direct in-hospital expenses were €4.4 million; mean in-patient cost was €3621. The most expensive were patients in cardiogenic shock with only 3 days of hospitalization (overall mean length-of-stay 8.2 days). The predictors of high costs were antiarrhythmic interventions (PM and ICD); 5.9% patients) making up to 21% of total expenses and revascularizations (coronary angiography followed by PCI in 31.5% patients) which made 41% of total expenses. CONCLUSIONS: The treatment of heart failure patients uses 1–2% of health care budget in developed European countries of which 2/3 are being spent on hospitalizations. AHF hospitalization is more frequent as the population ages (62% patients were more than 70 years old) and is associated with poor prognosis (in-hospital mortality 14.5%).

PCV68

IMPACT OF DRUG ELUTING STENTS ON CLINICAL AND ECONOMIC OUTCOMES IN AN UNSELECTED INTERVENTIONAL PRACTICE

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OBJECTIVES: To assess clinical and economic outcomes of PCI following the commercial availability of drug-eluting stents (DES). METHODS: We identified all patients undergoing PCI from 2000–2002 (pre-DES era) and from 2004–April 31, 2006 (DES era) in a large PCI registry that includes demographic, clinical, angiographic, procedural and outcome information. Administrative data were used to estimate length of stay (LOS) and procedural costs, as well as cardiac hospitalization costs during year follow-up. We used logistic and Cox proportional hazard models to estimate the adjusted risk of adverse events within propensity score stratum and generalized linear modeling to predict LOS, procedural and follow-up hospitalization costs by treatment era. RESULTS: We compared 3422 patients from the DES era (mean age 67, 69% male) and 4303 patients from the pre-DES era (mean age 67, 70% male). 90.0% of pre-DES era patients had bare-metal stents implanted; whereas 83% of DES era patients had DES. Adverse event rates were similar between time periods (adjusted odds ratio for in-hospital myocardial infarction (MI) in DES era: 0.79; 95% CI 0.62, 1.00). During a median 22 month follow-up, the adjusted incidence of death or MI was similar between cohorts, but follow up procedures were reduced in the DES era (hazard ratio for target lesion revascularization in DES era vs. pre-DES era: 0.58; 95% CI 0.50, 0.68). Models predict a mean LOS reduction of 0.40 days in the DES era and procedural cost savings of $2053 (95% bootstrapped CI of adjusted mean difference: –2937, –1197). Follow-up cardiac hospitalization costs were similar. CONCLUSIONS: In a large unselected PCI cohort, the introduction of DES was associated with improved clinical outcomes during follow-up and reduced in-hospital costs. These data suggest costly new technologies can be introduced into a general practice setting while maintaining and improving patient outcomes at an incremental cost savings.

PCV69

COST-EFFECTIVENESS OF ENDOVASCULAR ANEURYSM REPAIR VERSUS OPEN SURGICAL REPAIR: NON-RUPTURED INFRARENAL ABDOMINAL AORTIC ANEURYSM IN AN ELECTIVE SETTING

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OBJECTIVES: To determine the cost-effectiveness of endovascular aneurysm repair (EVAR) versus open surgical repair (OSR) for non-ruptured, infrarenal abdominal aortic aneurysm (AAA) in an elective setting. The analysis was conducted for the recent appraisal of EVAR by the National Institute for Health and Clinical Excellence in England and Wales. METHODS: A two-stage cost-utility model was developed from an NHS perspective to capture the lifetime costs and health outcomes of EVAR. The model population represented a 70-year old, fit for open surgery, with an AAA at least 5.5 cm in diameter. A decision-tree model captured the short-term costs and health outcomes of patients during the first 30-days post-repair, followed by a Markov model, with monthly cycles during the first 24 months and yearly cycles thereafter, until death. Clinical endpoints included mortality and complications. Primary data were derived from the EVAR I randomised controlled trial where reported. To reflect current clinical practice other sources including retrospective patient data were used. Costs were applied from trial data and national reference sources. A discount rate of 3.5% was applied to costs and health outcomes. Univariate and multivariate sensitivity analyses were performed for all parameters. An incremental cost-effectiveness ratio (ICER) reflecting incremental lifetime costs per quality adjusted life year (QALY) gained was calculated for the