COSTEFFECTIVENESS OF DRUG ELUTING STENTS FOR STABLE ANGINA
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OBJECTIVE: The aim of this study was to explore cost and health consequences of using drug eluting stents (DES) instead of bare metal stents (BMS) for patients with stable angina.

METHODS: We developed a Markov model which captures costs and outcomes the first two years after PCI with stent for stable angina. After each PCI, patients can become well, have a new intervention (PCI og CABG) or die. The model was based on meta-analyses of trials comparing DES with BMS. These trials indicate that the use of DES reduces the need for repeat revascularisation by 36% to 86%. We assumed that DES will reduce mortality because of fewer intervention related deaths, but also explored a potential increased mortality because the meta-analysis indicates a non-significant trend towards increased mortality of DES compared to BMS. One-way and Monte-Carlo sensitivity analyses were applied.

RESULTS: The estimated cost per avoided intervention was $5000 when BMS was replaced by DES, ranging from $200 to $16,000 in one-way sensitivity analyses. The price of a drug eluting stent would have to be reduced from currently $2000 to $1400 to make the use of DES cost saving compared to BMS (current purchasing price $560).

The estimated cost per life year gained and quality adjusted life year gained were $121,000 and $46,000, respectively, when increased mortality was disregarded in the model. Probabilistic sensitivity analysis indicated a 64% probability that drug eluting stents were cost-effective if society is willing to pay $50,000 for one quality adjusted life year when the increased mortality was included, BMS was the dominant strategy, with both lower costs and greater life expectancy.

CONCLUSIONS: The cost-effectiveness of DES depended heavily on purchasing price of the stents and rate of reintervention in routine practice and may not be cost-effective at current price level.

IMPACT OF STATIN THERAPY INTENSITY ON ALL-CAUSE MORTALITY FOLLOWING CARDIOVASCULAR HOSPITALIZATION IN A MANAGED CARE POPULATION
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OBJECTIVES: To examine if intensive statin therapy benefits demonstrated in randomized clinical trials (RCTs) could be substantiated in managed care patients hospitalized for cardiovascular events and procedures (CVEP). METHODS: An integrated US medical/pharmacy claims database (43 million members) was used to examine patient mortality risk following hospitalization discharge for CVEP (nonfatal MI, resuscitated cardiac arrest, acute coronary occlusion, CABG or PTCA). Inclusion criteria: age 18 years, health plan enrollment > 12 months prior to and > 1 month after hospitalization, and index hospitalization for CVEP between January 2000 to June 2003. Patients were identified as receiving no statin therapy within 30 days after discharge (S-), or receiving statin therapy. Statin therapy was defined as standard (STD) or intensive (INT), < or >40% LDL-C lowering efficacy according to the package insert. Patients were matched (INT vs. S-, STD vs. S-, and INT vs. STD) based on estimated propensity scores for statin therapy to adjust for baseline differences. Death was presumed from claims activity indicating a likely fatal event followed by health plan disenrollment. Mortality was compared among groups using Cox proportional hazards models controlling for prognostic factors.

Among matched pairs, crude death rates were 3.26% vs. 5.21% for INT vs. S- (n = 1688 matched pairs); 4.39% vs. 5.75% for STD vs. S- (n = 2346 matched pairs); and 2.33% vs. 3.26% for INT vs. STD (n = 3342 matched pairs). In Cox Proportional hazards models, risk of death was lower among patients treated with INT and STD therapy vs. S- (INT vs. S- Hazard Ratio [HR] = 0.581, 95% CI = 0.414, 0.816, p = 0.0017; STD vs. S- HR = 0.677, 95% CI = 0.525, 0.872, p = 0.0026). Patients receiving INT had 30% lower risk of death compared to STD (HR = 0.707, 95% CI = 0.528, 0.947; p = 0.0200). CONCLUSIONS: This real-world study validates benefits of intensive statin therapy reported in recent RCTs, and clinically significant reductions in mortality following cardiovascular hospitalization.

COSTS OF DIAGNOSIS OF ARRHYTHMOGENIC RIGTH VENTRICULAR CARDIOMYOPATHY IN INDIVIDUALS WITH A FAMILY HISTORY OF THE DISEASE IN POLAND
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OBJECTIVES: Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a genetically determined heart muscle disease associated with arrhythmia, heart failure and sudden death often being the first manifestation in probands. The aim of the study was to evaluate the costs of diagnosis of the disease in asymptomatic relatives in Poland. METHODS: A total of 239 asymptomatic subjects (mean age 35 years, 120 men) belonging to 42 families affected with ARVC were examined between May 2003 and May 2005. The costs of out-patients visit and additional diagnostic tests were included. Payer perspective was used.

RESULTS: In all individuals electrocardiogram and transthoracic echocardiography were performed. Magnetic resonance imaging and signal averaged electrocardiogram were performed in 35 patients suspected of having ARVC. The diagnostic criteria for ARVC were detected in 29 patients and 57 subjects fulfilled the borderline criteria for ARVC. Total costs of screening amounted to €13,086.35. The average cost per one case of ARVC detected was €451.25.

CONCLUSIONS: Costs of early detection of ARVC in individuals with a family history of the disease are low and enable the family screening in asymptomatic subjects in Poland.

COST OF HOSPITALIZATION FOR PATIENTS WITH ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY IN POLAND
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OBJECTIVES: Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a progressive heart muscle disease characterized by replacement of right ventricular myocardium by fibrofatty tissue and resulting in life threatening ventricular arrhythmias and heart failure. The aim of the study was to evaluate costs of hospital care in cardiology department for patients with ARVC in Poland. METHODS: Data on resource utilization were collected prospectively in patients with ARVC hospitalized in the tertiary center from May 2003 to May 2005. Patients’ stay fixed costs, costs of additional tests and procedures were extracted from hospital sources. Payer perspective was used.

RESULTS: A group of 39 patients with mean age 41.4 years (56% male) was analyzed. Average length of stay in the cardiology department was 13.4 days (ranging from 2 to 76 days). Total costs of hospital care amounted to €191,029.90. Average cost per patient was €4898.20. Procedural costs represented the major cost item.