respective. Within a budget of 10 million RUR the number of patients at European LDL-C goal at 1 year is: 558 on Crestor, 361 on Vaslip, 385 on Atoris and 394 on Tulip. CONCLUSION: Based on the equi-effective dose of statins CRESCOR is shown to be cost-effective compared to atorvastatin and simvastatin even at low generic prices across all value metrics analysed.

THE ANALYSIS OF HEALTH AND ECONOMIC BENEFITS AS THE CONSEQUENCE OF THE REALIZATION CARDIOVASCULAR SYSTEM DISEASES PREVENTION PROGRAMME AMONG THE CHILDREN AND YOUTH OF SCHOOL AGE IN POLAND

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OBJECTIVES: The purpose of this study was to evaluate health and economic benefits, throughout the country, as the consequence of the realization cardiovascular system diseases prevention programme among the children and youth of school age in Poland. METHODS: This was a health and an economic evaluation using a simulation model based on 10,000 subjects. The frequency of incidence of cardiovascular system diseases was estimated using data from the Polish epidemiological trials programs and statistical yearbook. Costs of cardiovascular system diseases treatment were derived from medical services catalogue of The National Health Fund (NFZ). The effectiveness of preventive programmes was extracted from the INTERHEART study and other published sources. RESULTS: Correctly constructed and conducted prevention programme of cardiovascular system diseases among the children and youth of school age in Poland could reduce about 70% lipid disorders, 50% obesity, 50% arterial hypertension, 8% heart attack, 5% the diabetes mellitus type 2, and about 4% the cerebrovascular incident in adult life of the beneficiaries. The indirect results of prevention are the extending of life-span and the improvement of health quality of individuals as well as their families, the improvement of epidemiological situation and measurable financial profit throughout the country because of dangerous and chronic health complications prevention as well as lack of limitations of ability to work. CONCLUSION: The cost of analysed preventive programme of cardiovascular system diseases is about 15 times smaller than health care costs of these diseases.

PCV75

PCV76

MEASUREMENT OF FRACTIONAL FLOW RESERVE IN PATIENTS WITH CORONARY ARTERY DISEASE TO GUIDE TREATMENT—RESULTS FROM A HEALTH TECHNOLOGY ASSESSMENT AND DECISION ANALYTIC MODEL

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OBJECTIVES: To perform a health technology assessment (HTA) commissioned by the German Federal Ministry of Health on coronary fractional flow reserve (FFR) to guide the decision on coronary stenting in patients with suspected mild coronary artery disease (CAD). METHODS: We performed a systematic literature search to identify clinical and economic studies on FFR-guided strategies. A meta-analysis on the diagnostic value of FFR and a review on economic evaluations were done. We developed a decision-analytic Coronary Artery Disease Outcome Model (CADOM) for the German health care context. Patients with angiographically suspected CAD without confirmed diagnosis were modeled in subgroups for age and gender (basecase: 60-year old man). Model parameters were derived from German databases and the published literature. We adopted the societal perspective, used a life-time horizon, and discounted costs and effects by 5% per year. RESULTS: We identified 10 diagnostic accuracy studies, 1 multicenter randomized clinical trial (RCT) for efficacy, and 1 decision-analytic cost-effectiveness study (US context). Pooled sensitivity and specificity of FFR was 81.7% (95%CI: 77.0–85.7%) and 78.7% (95%CI: 74.3–82.7%), respectively. Few studies used a sufficient goldstandard. The RCT investigated the efficacy of a FFR-based treatment strategy and showed advantages for patients in terms of major adverse cardiac events and freedom from angina. The cost-effectiveness study showed the FFR-based strategy being cost-saving in the US health care system. Results from German CADOM indicated a gain in quality-adjusted life-expectancy for the FFR-guided strategy compared to universal coronary intervention in all patients. The base-case discounted incremental cost-effectiveness ratio was Euro 16,000 per QALY gained. Uni- and multivariate sensitivity analyses showed robust results. CONCLUSION: This HTA suggests that FFR-guided treatment results in clinical benefits for patients with suspected CAD and should be cost-effective in the German context. FFR should be implemented in routine clinical decision making in patients with suspected CAD.

RESPONSE-SHIFT IN HEART DISEASE: COMPARING INDIVIDUALIZED VS. DISEASE-SPECIFIC HRQL INSTRUMENTS

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OBJECTIVES: The phenomena of response-shift has recently entered the PRO literature and provided new insight how change scores in PRO measures such as HRQL-instruments can be interpreted. Methods have been to investigate the 3 types of response-shift: recalibration, reconceptualization and reprioritization. The aim of this study was to investigate to what extend response-shift occurs in individualized vs. disease-specific HRQL-instruments and how it can be captured. METHODS: In a prospective longitudinal study 100 patients with angiographically documented coronary artery disease were approached at 2 time points (hospital-baseline and 6 month-follow-up) with an individualized QoL-instrument (Schedule for the Evaluation of Individualized Quality of Life, SEIQoL) and a disease-specific HRQL-instrument (MacNew Heart Disease Quality of Life Questionnaire; MacNew). The SEIQoL is constructed allowing capturing two aspects of response-shift: reconceptualization (cues) and reprioritization (weights). In addition the “Then-Test” was applied to the MacNew at 6 month-follow-up to capture recalibration. RESULTS: Informed consent was given by 64 patients (61+/-7.5 years, 28.1% female, main symptom: 71.9% angina) and all patients were treated with percutaneous coronary interventions. 71.9% returned the six-month follow-up. Individualized QoL (SEIQoL-Index) did not improve over the 6 month-period (t0: 65.8±25.5; t1: 67.8±20.5, p ns), in addition 25% of the patients showed response-shift effects of reconceptualization in at least one cue of the SEIQoL. No significant change in SEIQoL cue-weights occurred. Disease-specific HRQL scores changed significantly over time (t0: 4.7+/-1.2, t1: 5.3+/-1.1, p = 0.004); and no recalibration occurred (t0-then-test: 4.6+/-1.4, p = 0.418). CONCLUSION: This prospective study investigating the effects of percutaneous coronary interven-
tions highlighted that response-shift effects may be a result of the instruments used. Individualized (generic) QoL instruments can be prone to response-shift effects due to their conceptualization addressing a broad range of life aspects. In contrast, disease-specific PRO measures focusing on specific aspects of disease are less affected by response-shift phenomena.

**CARDIOVASCULAR DISEASE—Patient Reported Outcomes**

**PCV78**

**MONITORING AND ASSESSING ADHERENCE TO STATINS THERAPY IN REAL PRACTICE USING ADMINISTRATIVE DATABASES**

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**OBJECTIVES:** According to international surveys, half of the subjects with indications for statin therapy are treated and half the treated subjects is still adherent after six month from starting therapy. Poor adherence to statin therapy is the main factor of cardiovascular prevention failure and health care costs increase. Unfortunately, tools to support stakeholders in monitoring current medical practice are unavailable. The aim of our work was to perform a population-based retrospective analysis to evaluate the characteristics of patients treated with statins and their adherence to treatment through the linkage of administrative databases of the LHS of Ferrara (approximately 350,000 beneficiaries).

**METHODS:** All subjects aged >18 years receiving at least a prescription for statins between January 1st, 2004 and June 31st, 2005 were enrolled. In each subject we recorded age, sex, concurrent chronic therapy, previous hospital admissions and, starting from the first prescription, a treatment profile in the following 6 months. Adherent subjects were defined as having a PDD-standardized (mean daily dose/PDD)>0.8. The pharmacological patterns were compared among three periods lasting 6 months each.

**RESULTS:** Treated subjects decreased from 20,445 and 20,221 of the first two periods to 17,756 of the third period mainly for reduction of newly treated subjects (from 5,108 and 4342 to 3,688). Newly treated in the third period were more frequently male, older and showed a higher prevalence of concurrent drug treatments and of previous cardiovascular hospitalizations. Adherent subjects increased from 29.7% and 31.9% in first two periods to 45.4% in third period (OR 1.648, CI 1.579–1.721, p<0.0001).

**CONCLUSION:** Poor adherence was associated with younger age, lower prevalence of concurrent drug treatments and of previous cardiovascular hospitalizations. Adequate systems are required to monitor and assess actual practice, to highlight and size critical areas, to account stakeholders for practice improvement through adherence to standard rather than for cost containment.

**PCV79**

**PERSISTENCE TO ANTILIPIDEMICS VARIES BY SEX, AGE, AND RACE/ETHNICITY: ANALYSIS OF A LARGE-SCALE RETROSPECTIVE CLAIMS DATABASE**

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**OBJECTIVES:** The National Cholesterol Education Program ATP III (ATPIII) guidelines notes that patient persistence to lipid-lowering therapy is suboptimal. Persistence is especially important because patients with hyperlipidemia typically require long-term treatment. ATPIII further notes that adherence appears to be unrelated to sex, age, ethnicity, or socioeconomic status. Given that women and racial minorities are less likely to achieve ATPIII lipid goals, we sought to retrospectively examine the relationship between specific demographics and the likelihood of discontinuing antilipidemic medications. 

**METHODS:** Retrospective claims analysis of Florida Medicaid adults (age ≥18 years) who initiated antilipidemics during 1997–2006, and who had ≥1 year of data prior to, and ≥3 years of data following, their first antilipidemic claim. Premature discontinuation was defined as no antilipidemic claim for at least 6 months during the ≥3 year follow-up. Chi-square examined categorical variables and Cox proportional hazard examined demographic (sex, age, race/ethnicity) predictors of discontinuation.

**RESULTS:** Of 75,726 patients initiating antilipidemics, most (68.8%; n = 52,083) were female and age ≥50 years (75.7%; n = 57,333); 42.7%, (N = 32,350) were White, 18.5% (n = 14,015) Black, 9.5% (n = 7,163) Hispanic, and 29.3% (n = 22,198) other races/ethnicities. Hispanics were 45%, other races/ethnicities 30%, and Blacks 7% more likely to discontinue treatment (all p<0.0001) than Whites. Younger patients (<50 years) were 18% more likely to discontinue treatment than older (>70 years) patients (p<0.0001), and females were 8% more likely to discontinue treatment than males (p<0.0001). 

**CONCLUSION:** Compared to ATPIII, which reports that antilipidemic persistence is unrelated to demographics, we found antilipidemic persistence to be significantly associated with patient sex, age, and race/ethnicity. However, our results are consistent with those of other recent retrospective studies that report a significant relationship between demographic and adherence to lipid-lowering therapy. Poor persistence may, in part, explain lower rates of achieving ATPIII lipid goals seen among women and racial/ethnic minorities.

**PCV80**

**PERSISTENCE AND ADHERENCE TO HYPOLIPIDEMIC THERAPY IN REAL PRACTICE: RESULTS OF A LARGE ADMINISTRATIVE DATABASE**

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**OBJECTIVES:** Chronic disease therapies have to be taken for long periods, usually indefinitely; hence the risk of discontinuation is often high. Low compliance/persistence may compromise the potential benefits of treatment. The purpose of this study was to investigate patients’ adherence and persistence to therapy with hypolipidemic medications using a large administrative database.

**METHODS:** We used the Regione Lombardia Health Service (RLHS) administrative databases, which contain information on a population of ≥9 millions individuals with universal health care and pharmaceutical coverage. The study population included individuals with at least one prescription of a hypolipidemic agent during the year 2003 and who were enrolled in the RLHS in the year 2003. Persistence and adherence was evaluated with the medication possession ratio (MPR), calculated as the ratio between the number of pills dispensed during the study period and the number of days of observation. MPR was estimated for individuals who filled their first prescription in the year before 31 October 2003.

**RESULTS:** Out of a population of 9,108,645 members, 560,737 (6.2%) received at least one prescription of a study drug. Frequency of use increased from 0.7% in subjects with age <40 years to 18.4% in subjects age 70–79 y.o. A total of 16.2% of subjects received one or two packs during the study period, the median number of packs prescribed was 14, and