Abstracts

PCV47
ROSUVASTATIN 40MG VERSUS ATORVASTATIN 80MG IN HIGH-RISK PATIENTS WITH HYPERCHOLESTEROLAEMIA: ECONOMIC ANALYSIS OF THE POLARIS STUDY
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OBJECTIVES: POLARIS is a 26-week, double-blind, randomised study comparing the efficacy of rosuvastatin (RSV) 40mg with atorvastatin (ATV) 80mg in high-risk patients (known CHD or CHD-risk equivalent, as defined by NCEP ATP III) with hypercholesterolaemia. Using a secondary prevention model, results from POLARIS were used to estimate longer-term costs and benefits. METHODS: Efficacy data from POLARIS (TC, HDL-C, and TG) were used as input to the model. Markov models were run in 4-year cycles over 20 years, from age 55 to 76 years for men and women separately. Secondary CHD risk was based on Framingham data (d’Agostino et al. AHJ 2000) but calibrated to British Regional Heart Study (Brindle et al. BMJ 2003). Estimates for life expectancy, health-care costs and quality-adjusted life years (QALYs) were assigned to patients as they transitioned through the model. RESULTS: RSV 40mg improved levels of TC and HDL-C more than ATV 80mg (-41% vs. -39%; +11.0 vs. +6.2%, respectively). The model predicts that more secondary CHD events and deaths are avoided with RSV 40mg compared with ATV 80mg in both high-risk men and women; hence, more life-years and QALYs are generated and event costs are lower. More patients survive on treatment and therefore total costs with RSV 40mg are slightly higher. Cost per life year gained (men: £1113, women: £1065) and QALY gained (men: £2091, women: £3079) are favourable for RSV 40mg. CONCLUSIONS: RSV 40mg is likely to be more effective both clinically and economically than ATV 80mg for the secondary prevention of CHD.

PCV48
ASSESSMENT OF MAXIMUM LDL-C REDUCTION AND GOAL ATTAINMENT BY SWITCHING PATIENTS TO DUAL INHIBITION THERAPY (EZETIMIBE/SIMVASTATIN) IN SPAIN
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While treatment guidelines recommend lowering cholesterol to target levels, many remain above goal (LDL-C >100mg/dl for CHD/diabetic patients and LDL-C >130mg/dl for other non-CHD high-risk individuals). OBJECTIVE: To assess the change in LDL-C and goal attainment rates due to switching patients to an Ezetimibe/Simvastatin dose titration strategy, compared with a simulated statin monotherapy dose titration strategy. METHOD: A decision-analytic model was developed to project goal attainment at end of 1-year after therapy change. Clinical trial data were used to estimate LDL-C reductions for different treatment strategies. The model was run for a population of 504 Spanish patients (237 CHD/diabetic and 267 non-CHD high risk patients) that had not reached LDL-C goal levels 3-months after starting statin therapy. Patients not at goal where up titrated (till goal attainment or to the maximum dose whichever was first) every 3 months both in the Ezetimibe/Simvastatin (only simvas-tatin titrated) and in the statin monotherapy titration arms. RESULTS: Mean age was 60.8 (SD 9.8) years, 47.8% female, lipid profile (mg/dl) at three months on statin monotherapy was LDL-C 182.3 (SD 35.1), TC 262.1 (SD 39.5), HDL-C 50.8 (SD 14.1), triglycerides 150.1 (SD 82.5). Ezetimibe/Simvastatin therapy is projected to achieve a 82.6% goal attainment rate, compared with 46.0% projected for the statin titration strategy. With respect to LDL-C reductions, Ezetimibe/Simvastatin would achieve a 38.2% reduction over baseline, compared with a 24.5% with the statin titration strategy. In the statin arm, 73.9% of the patients reached the statin maximum dose, whereas in the Ezetimibe/Simvastatin arm, only 23.5% of the patients did so. CONCLUSION: Compared to statin monotherapy titration, switching patients not at goal on statin monotherapy to Ezetimibe/Simvastatin followed by titration is projected to get 36.6% additional patients to goal and reduce LDL-c by 13.7%.

PCV49
BELGIAN EVALUATION OF SCREENING AND TREATMENT OF HIGH RISK PATIENTS BASED ON WAIST AND AGE (BEST)
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OBJECTIVE: The objective of this study was to describe the burden of modifiable risk factors and of the total CV risk in a population, free of CVD, selected in general practice, on the basis of age (40–75yrs) and waist circumference (≥94cm in men and ≥80cm in women). METHODS: In total, 619 Belgian GPs recruited consecutive patients during spring 2004. A central lab analysed fasting blood samples. RESULTS: Complete data on 8587 patients were obtained. Mean age was 58yrs (47% women). Mean BMI and waist were 30.1kg/m2 and 99cm for women and 30.1kg/m2 and 107cm for men. Eighteen-percent had diabetes (D) either known and treated (14%) or newly detected, based on fasting glucose levels (4%). Of the non-diabetic subjects (ND), 25% had 3 metabolic syndrome risk factors (NCEP-ATP III criteria). Twenty-four percent of the total population was smoking and 84% did not engage in regular physical activity. Seventy-seven percent of ND had LDL cholesterol ≥115mg/dl & 78% of D had LDL cholesterol ≥100mg/dl. Only 31% of subjects on lipid lowering drugs had TC <190 and LDL <115mg/dl. 49% of ND had BP >140/90 mmHg and 91% of the D had BP ≥130/80 mmHg. Total CV risk in the ND was estimated using the SCORE chart calibrated for Belgium. Total risk ≥5% for dying from CVD in the coming 10yrs was present in more than 40% of men and in more than 20% of women. CONCLUSION: Waist measurement is an easy and inexpensive tool to detect, in the middle-aged population free of CVD, a subgroup with a large variety of modifiable risk factors and at high risk for CV death. A large majority of them is physically inactive, an unacceptable proportion is smoking and both total cholesterol and blood pressure are insufficiently managed.

PCV50
A MULTILEVEL ANALYSIS ON PRESCRIBED STATINES IN A BOLOGNA HEALTH AUTHORITY FROM 2000 TO 2003
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OBJECTIVES: The main aim is to evaluate the variability of practitioners’ prescribing behaviour on statines in AUSL Bologna South from 2000 to 2003, as well as to quantify how much such a behaviour depends on culture, education and policy of practi- tioner. METHODS: A multilevel model has been built to reflect
the hierarchical data structure: patients with prescribed statines, nested in their prescribing general practitioner. The multilevel model advantage lies on the fact that one can insert, in the same analysis, independent variables related either to the general practitioners (level-2) or to the patients (level-1). Furthermore, one can quantify the variability at each level, which is, prescribing practitioners’ variability and patients’ variability. Particularly, a random intercept model has been built, where the response variable is the sum of the daily dosages given in the prescriptions for each patient. Actually, we refer to generalized linear model theory, because the dependent variable is Gamma-distributed.

RESULTS: The regressors referred to the patients (level-1) and inserted into the model are: age, sex, and use of other cardiovascular drugs. The level-2 independent variables, hence referred to practitioner, are: age, sex, specialization (yes/no) on cardiology, ratio of statines’ prescriptions on total number of prescriptions of cardiovascular drugs and percentage of patients over 65 years old. The largest part of variability is obviously due to patients’ effect. Regarding the regressions of level 2, the age of the practitioner provides a negative and significant coefficient, indicating a tendency towards “prescriptive thrift” by older doctors. CONCLUSIONS: It appears to be a clear evidence that the consumption of statines and, generally, of drugs cannot be simply reduced to individual characteristics. From a methodological point of view, it has been shown that multilevel approach provides a coherent framework, in spite of the lack of applications to health sciences.

PCVS1

PROJECTED LDL-C REDUCTION AND GOAL ATTAINMENT BY SWITCHING PATIENTS TO DUAL INHIBITION THERAPY (EZETIMIBE/SIMVASTATIN 10/20MG) IN SPAIN

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While treatment guidelines recommend lowering cholesterol to target levels, many remain above goal (LDL-C >100mg/dL for CHD and diabetic patients and LDL-C >130mg/dL for other non-CHD high risk individuals). OBJECTIVE: To project the change in LDL-C and goal attainment rates by treating patients with Ezetimibe/Simvastatin 10/20mg, and compare it with what was observed in clinical practice with statin monotherapy. METHOD: A decision-analytic model was developed to project goal attainment at end of one year after therapy change. Short term clinical trial data were used to estimate LDL-C reductions for Ezetimibe/Simvastatin therapy. The model was run for a population of 504 Spanish patients (237 CHD/diabetic and 267 non-CHD high risk patients) that had not reached LDL-C goal levels 3 months after starting statin therapy. Patients were assumed to remain treated with Ezetimibe/Simvastatin 10/20mg for 12 months from then, and their results compared with those observed in real life in the same time period. RESULTS: Mean age of study population was 60.8 (SD 9.8) years, 47.8% female, lipid profile (mg/dl) at three months on statin monotherapy was LDL-C 182.3 (SD 35.1), TC 262.1 (SD 39.5), HDL-C 50.8 (SD 9.8), triglycerides 150.1 (SD 82.5). Ezetimibe/Simvastatin 10/20mg therapy is projected to achieve a 53.4% goal attainment rate, which was a 2.0% goal attainment rate was observed in clinical practice (were 8% of patients were up titrated on statin dose during first year). With respect to LDL-C reductions, Ezetimibe/Simvastatin 10/20mg, could achieve a 31.5% reduction over baseline, vs. a 4.9% achieved in real life clinical practice during similar time period. CONCLUSION: Treating patients not at goal on statin monotherapy with Dual-inhibition therapy (Ezetimibe/Simvastatin 10/20mg) is projected to greatly improve the results of lipid-lowering therapy compared to statin monotherapy observed in real life clinical practice.

PCVS2

IMPACT OF COMPLIANCE AND PERSISTENCE OF TREATMENT WITH VALSARTAN ON HYPERTENSION CLINICAL OUTCOMES

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OBJECTIVES: The relationship between compliance and persistence with hypertension therapies and clinical outcomes has not previously been quantified. In addition, little information is available regarding the “real-world” effectiveness of hypertension therapies. In this study, we evaluated the impact of compliance and persistence with valsartan (Diovan®) therapy on blood pressure outcomes using office-based effectiveness data. METHODS: We analyzed data from the Geisinger Clinic, a U.S. regional health care network with 52 primary care and specialty clinics. Information on patient characteristics and longitudinal data on prescribed medications and use and office blood pressure reading were obtained from the network’s electronic health record database. Hypertension status was based on JNC VII guidelines. RESULTS: Increased compliance with use of valsartan therapy (i.e., taking therapy as prescribed) was associated with a significant decrease in systolic and diastolic blood pressure 6 and 12 months after the initial prescription. At 12 months, a 10% increase in compliance resulted in decreases in systolic and diastolic blood pressure of 1.3 and 0.5mmHg (respectively) and a 17% increase in having controlled blood pressure. Greater persistence with valsartan therapy (i.e., time on therapy following control of blood pressure) was also associated with significant decreases in blood pressure. For each additional month of treatment persistence following blood pressure control, systolic and diastolic blood pressure at one year decreased by 1.4 and 0.5mmHg, respectively. CONCLUSIONS: We have demonstrated that both compliance and persistence with valsartan therapy are associated with significant improvements in blood pressure control. Further, having access to office-based blood pressure data, we were able to evaluate treatment effectiveness rather than only efficacy. Improved compliance and persistence with hypertension therapy is likely to result in long-term improvement in patient outcomes, such as decreased cardiovascular complications.

PCVS3

PATIENT PROFILE AND STATINS EFFECTIVENESS IN USUAL CARE

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Atorvastatin produces the highest LDL reduction among the statins commercialized in Spain, as demonstrated in clinical trials. OBJECTIVE: To retrospectively compare the effectiveness of different statins in terms of CVRF control, in daily clinical practice. METHODS: A total of 9001 subjects from four primary care centres in Catalonia were retrospectively examined. A total of 9001 hypertensive and/or dyslipidemic patients from Managed Care programmes were selected. The following variables were retrospectively compared for the different statins: 1) the level of cardiovascular risk as defined by ATP III criteria; 2) average number of CVRF; and 3) average proportion of subjects with appropriately controlled CVRF according to ATP III criteria. RESULTS: 1) The average proportion of patients with pre-