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.

**PCV51**

**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 14.1), triglycerides 150.1 (SD 82.5). Ezetimibe/Simvastatin 10/20mg therapy is projected to achieve a 53.4% goal attainment rate, were as 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.

**PCV52**

**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 0.5 mmHg (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 0.5 mmHg, 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.

**PCV53**

**PATIENT PROFILE AND STATINS EFFECTIVENESS IN USUAL CARE**

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Atorvastatin produces the highest cLDL 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-