

¹Jagiellonian University, Collegium Medicum, Krakow, Poland, ²Jagiellonian University, Krakow, Poland

OBJECTIVES: Pharmacotherapy is a major cost driver in venous thromboembolism (VTE) treatment. Analyses of drug utilization and impact of pharmaceutical policy are impeded by complicated rules of reimbursement, accessibility of data, changes of prices and reference prices. The goal of this study was to critically assess utilization and costs of reimbursed low-molecular weight heparins (LMWH) and vitamin K antagonists (VKA) used on outpatient basis in Poland. **METHODS:** Reimbursement records of Silesian Provincial Division of National Health Fund (NHF) were searched for detailed data on consumption of LMWH and VKA (FY 2009; about 4.646.000 insureds). Perspectives of public payer and patient were applied. **RESULTS:** Market of antithrombotics was dominated by LMWH (97% of value, 98% of reimbursement, 85% of packages number). Reimbursement constituted 94% of LMWH value and 73% of VKA value. Daily cost of VTE pharmacotherapy with LMWH was higher than with VKA (234 times for NHF, 42 times for patients). Within groups of both LMWH and VKA reimbursement of daily doses of particular drugs was changing in reverse manner than level of patient co-payment. Using warfarin instead of acenocoumarol was more expensive for NHF by 147%, while for patients cheaper by 25%. Using enoxaparin instead of nadroparin was for NHF more expensive by 29%, but for patients less expensive by 15%. Using dalteparin instead of nadroparin was even more expensive for NHF (by 46%), while for patients even more cheap (by 23%). **CONCLUSIONS:** Market of reimbursed antithrombotic drugs was dominated by LMWH. Pharmaceutical policy in Poland was not promoting usage of less expensive therapeutic options within groups of LMWH and VKA. Current implementation of new reimbursement law should be accompanied by careful monitoring of impact, which it brings for rationalization of health policy.

PCV109

ANTITHROMBOTIC THERAPY PRESCRIPTION AND PERSISTENCE IN PATIENTS WITH ATRIAL FIBRILLATION IN FRANCE AND SPAIN

Huguet M¹, Shakespeare A², Haug HM³, Miadi-Fargier H³, Restovic G⁴, Rafols C⁴, Kempf C¹

¹Cegedim Strategic Data, Boulogne-Billancourt, Ile-de-France, France, ²Bayer Plc, Uxbridge, Greater London, UK, ³Bayer Santé S.A.S., Loos, Nord, France, ⁴Bayer Hispania, S.L., Sant Joan Despí, Barcelona, Spain

OBJECTIVES: Antithrombotic therapy with oral anticoagulants (vitamin K antagonists, VKAs) or antiplatelets (APs) is used to reduce stroke risk in patients with atrial fibrillation (AF). This study reports on real-life prescription of VKAs and persistence rates amongst AF patients in France and Spain. **METHODS:** A multicentre, retrospective, observational study was conducted using 2008–9 data from Longitudinal Patient Databases (LPD@, Cegedim) of 1,200 and 300 general practitioners in France and Spain, respectively. Patients with a diagnosis of AF during the study were included and were considered to be receiving VKAs if they had ≥ 1 prescription during the one-year follow-up. Persistence was defined as continuous use with periods of <60 days interruption allowed. Persistence was assessed in newly diagnosed AF patients. **RESULTS:** In total, 11,355 and 2,924 AF patients were identified in France and Spain, respectively. In France, VKAs were prescribed to 64% of patients (54% VKA only, 9% VKA + AP) and 32% of eligible patients (CHADS2 stroke risk score ≥ 2) did not receive anticoagulation. 15% of patients received no antithrombotic therapy. VKA persistence was 64% and 45% at 6 and 12 months. In Spain, VKAs were prescribed to 52% of patients (44% VKA only, 8% VKA + AP); 41% of eligible patients did not receive anticoagulation. 16% of patients received no antithrombotic therapy. VKA persistence was 60% and 38% at 6 and 12 months. In France, univariate analyses showed anaemia, number of co-medications, hypertension, BMI 25–30 kg/m², age 75–84 years and age ≥ 85 years to be significant negative predictors of persistence ($p=0.036$ for all); prior myocardial infarction ($p=0.079$) was a non-significant negative predictor of persistence. **CONCLUSIONS:** Prescription and persistence patterns in France and Spain show suboptimal adherence to treatment guidelines and VKA therapy in both countries after both 6 and 12 months, suggesting that these AF patients remain at risk of stroke.

PCV110

MULTIVARIATE ANALYSIS OF CLINICAL AND PATIENT-LEVEL FACTORS ASSOCIATED WITH COLESEVELAM TREATMENT PERSISTENCE

Romanelli R¹, Leahy A¹, Jukes T¹, Ye X², Luan A², Ishisaka D¹

¹Sutter Health, San Francisco, CA, USA, ²Daiichi Sankyo, Parsippany, NJ, USA

OBJECTIVES: To evaluate colesevelam treatment persistence and associated factors. **METHODS:** In this retrospective study, patients with hyperlipidemia (HL) diagnosis were identified through electronic health records, who were ≥ 18 years old, had an initial order for colesevelam between January 2004 and December 2011, an LDL-C value within 3 months of the initial order date (baseline), and ≥ 12 months of LDL-C follow-up. Colesevelam treatment persistence was defined a priori as no order gap >30 days. Multivariate stepwise logistic regression was performed to assess clinical and patient-level factors associated with ≥ 12 months of colesevelam treatment persistence. Adjusted odds ratios (OR) and corresponding 95% confidence intervals (CIs) were calculated. A p -value <0.05 was considered statistically significant. **RESULTS:** A total of 971 patients met the predefined inclusion criteria, of which 48.2% had ≥ 12 months of persistent treatment. Multivariate analysis showed that female sex (OR: 0.68; 95% CI: 0.53, 0.88; $p=0.004$) and concurrent insulin therapy (0.65; 0.46, 0.94; $p=0.021$) were associated with a lower odds of having ≥ 12 months colesevelam treatment persistence, whereas an increased number of concomitant medications (1.09; 1.01, 1.19; $p=0.023$) and concurrent intestinal cholesterol absorption inhibitor therapy (1.51; 1.08, 2.11; $p=0.016$) was associated with a greater odds of having ≥ 12 months treatment persistence. **CONCLUSIONS:** Several factors were significantly associated with colesevelam

treatment persistence among patients with HL in an integrated health system. In particular, concomitant medication was associated with better treatment persistence; these data may assist in optimizing therapy regimens for lipid management.

PCV111

UNMET THERAPEUTIC NEEDS FOR PATIENTS WITH DYSLIPIDEMIA ACCORDING TO ATP III GUIDELINES

Amand-Bourdon C¹, Hopkins B², Chou E², Yang T³, Wang H²

¹Sanofi, Chilly-Mazarin, France, ²Sanofi, Bridgewater, NJ, USA, ³Poplar Palace, Inc., Marlboro, NJ, USA

OBJECTIVES: Dyslipidemia is a common disease that may lead to undesired cardiovascular outcomes. We evaluated the LDL-c lowering drug use for patients at three levels of risk defined by ATP III guidelines. **METHODS:** Three cohorts were identified according to ATP III risk classification: high risk=CVD or CHD equivalent (HR); moderate risk=2+ risk factors (MR); low risk=0-1 risk factor (LRI)'s recommended that patient with these risk levels should receive the treatment if LDL was greater than 130, 160 and 190 mg/dL, respectively. All patients were required to have 6-month continuous health insurance coverage as ascertainment period and LDL lowering drug use was evaluated in the subsequent two years using the US Impact insurance claims database. **RESULTS:** We identified 9,866 HR, 17,539 MR and 14,975 LR patients from 2006 to 2008. Compared with LR patients during 6-month baseline, HR and MR patients were older (mean age of 59, 59 versus 49 years), visited a cardiologist more often (46.9%, 12.2% vs 4.5%), had more hypertension (80.0%, 90.8% vs 10.8%) and diabetes (19.3%, 14.6% vs 4.6%), and incurred higher mean health care expenditures (\$8,803, \$3,419 vs \$1,966). For all three cohorts, the majority of patients did not have lipid lowering medications dispensed within 2 years (57.1%, 54.4% and 58.2%, respectively). For patients who did, lower dose statins was the most commonly dispensed (52.0%, 52.6% and 51.4%, respectively). Overall, the medication possession rate is low (~0.6) and a relatively low percentage of patients changed their medications. **CONCLUSIONS:** Despite ATP recommendations for treatment, the majority of the patients at all risk levels were not using lipid lowering medications two years after ascertainment of excess LDL level. Among patients who obtained the medications, lower dose statins were most commonly used. Furthermore, medication adherence in the treated patients was suboptimal, suggesting remaining unmet therapeutic needs in this patient population.

PCV112

DOSAGE ANALYSIS OF CHF THERAPIES ON THE BASIS OF HUNGARIAN CLAIM DATABASE

Tóth E¹, Kovacs E¹, Nagy B²

¹Healthware Consulting Ltd., Budapest, Hungary, ²Healthware Ltd, Budapest, Hungary

OBJECTIVES: Reaching target dose of neurohormonal blockade drugs is crucial for health outcomes in chronic heart failure (CHF). Our aim was to present dosage analysis for CHF therapies. Our calculation was presented on the basis of representative patient attendance data from the National Health Insurance Fund Administration (NHIFA) in Hungary. **METHODS:** NHIFA database uniquely contains detailed provision data (medicine, out- and inpatient services) from the whole Hungarian population of 10 million. All financed health care providers use the same report structure and reported data are strictly validated. Our retrospective analyses included data of 2004–2010 for all patients with chronic heart failure (ICD code I50) as main diagnosis. Rate of therapy and dosage pattern were analysed on the basis of prescription data. Real world dose of therapy was estimated as filled volume per time between prescription fill. Estimated dose per day was aggregated on half year basis from the first medicine record. On the basis of histological data titration patterns were analysed as well. **RESULTS:** Merely 80% of CHF patients is treated with adequate therapy. Results for dosage patterns showed, that patients are not reaching target dose in practice, and titration process is suboptimal as well. **CONCLUSIONS:** Patient and disease management program of CHF patients could improve health outcomes by enhance treatment effectiveness.

PCV113

THE UTILISATION OF STATINS IN SLOVAK REPUBLIC

Gatfalova K¹, Bellova K², Foltan V³, Majtás J²

¹Pharmaceutical Faculty at Comenius University, Bratislava, Slovak Republic, ²Comenius University, Bratislava, Slovak Republic, ³Faculty of Pharmacy, Comenius University, Bratislava, Slovak Republic

OBJECTIVES: Statins are the treatment of choice for lowering LDL-C levels and reducing cardiovascular events. Statins are given to people with at least 20% risk of having a major vascular event within 10 years. They reduce risk of serious vascular events by 21 percent. Currently available statins in Slovakia are lovastatin, simvastatin, fluvastatin, atorvastatin, rosuvastatin. **METHODS:** Data were abstracted from Slovak Institute for Drug Control. Key data for analysis including the number of medicine packages and financial expenditures are provided to SIDC by wholesalers. **RESULTS:** The highest consumption of statins within years 2008–2012 was observed in 2010 with total expenditures of 25.9 mil. € and with 3.5 prescribed packages. Financial expenditures rose gradually from 22.9 mil. € in 2008 to 25.9 mil. € in 2010 and subsequently declined to 25.3 mil. € in 2011. In first quartal of 2012 the downward trend continues with estimated annual decrease to 22.9 millions €. Consumption expressed in number of packages fluctuated from 2.8 mil. in 2008 to 3.3 in 2011, with expected downturn to 3.1 in 2012. Significant increase in number of issued packages was noted between 2008 and 2009, while financial expenditures exceeded their growth between 2009 and 2010. The most frequently used statin in Slovakia is atorvastatin (65% in 2011) followed by simvastatin (21% in 2011). The expenditures of rosuvastatin almost tripled in both financial and physical units within 2008–2011. The Lowest consumption showed lovastatin (0.9% in 2011).