guidelines, health prevention / monitoring strategies, involving coordinated actions between primary care and pharmacies, are valuable resources to consider.

PCV150

A REVIEW OF THE APPLICATION OF INTERNATIONAL REFERENCE PRICING IN UKRAINE'S PILOT HYPERTENSION REIMBURSEMENT SCHEME

Rainova K, Izmirlieva M, Ando G

IHS, London, UK

OBJECTIVES: The Ukrainian government has been considering ways to improve the population's access to medicines by offering limited reimbursement access. For this purpose, the government has expressed its interest in implementing International reference pricing (IRP). The pilot hypertension programme, which introduced a system of IRP for certain hypertension drugs, was introduced in mid-2012. The government is currently looking to revise the pricing and reimbursement mechanism and to expand the list of drugs eligible for reimbursement under the scheme. This study examines the pilot hypertension programme and its impact in terms of achieving its objectives so far. **METHODS:** Secondary research focused on analysing the current pharmaceutical market and health care situation in Ukraine, with a specific focus on the hypertension market. The study then assessed the pricing and reimbursement methodology which is currently in place, the programme's objectives, and its impact on volume and value of the antihypertensives market. **RESULTS:** Hypertension was chosen for the pilot programme due to the high prevalence of the condition in the country. While, for the full year 2012, the weighted average cost per package in the antihypertensive drug segment decreased by 1.4% compared to the previous year, the volume of retail sales increased 16.8%. Furthermore, as of January 2013, the prices of these drugs had been falling every month from July till December 2012 compared to the corresponding months of 2011. **CONCLUSIONS:** With the pilot hypertension programme, the government is hoping to lower drug prices and thereby improve affordability. Considering that the pilot scheme could be followed by programmes in other therapeutic areas, including a government proposal to include IRP for insulin treatments, the structure and effectiveness of the hypertension programme, and the subsequent amendments to it, could substantially impact the development of any other potential programmes in the future.

PCV151

HOW COMPLEX IS THE COMPETITION IN REGULATED PHARMACEUTICAL MARKETS?

Colak B[1], Timur A[2]

[1]*University of South Florida, Tampa, FL, USA,* [2]*Hodges University, Johnson School of Business, Naples, FL, USA*

OBJECTIVES: This paper constitutes an attempt at investigating processes of dynamic competition in pharmaceuticals, with reference to the nature and intensity of price competition in relation to patent expiry and different regulatory regimes. The paper uses comprehensive data on a selection of in-patent and off-patent (generic) cardiovascular medicines from IMS from the five largest European pharmaceutical markets - UK, Germany, France, Italy, Spain - to analyze the impact that pricing and reimbursement regulation and product differentiation have on market structure, diffusion and prices. **METHODS:** The paper develops a panel data model to explain the determinants of brand-name prices and generic prices both before and after patent expiry, the impact of generic entry and generic penetration on market share and prices of brand-name drugs, the competition patterns in their off-patent sector, the determinants of generic diffusion in the presence of generic competition, and the relationship between originator branded and generic prices under different regulatory regimes. The structure of the data allows these questions to be explored at molecule level and at product level. At all levels the originator and generic markets are observable. **RESULTS:** Despite the proliferation of generic policies in many countries, prices in the off-patent sector do not decline as fast as originally thought. Entry into the generic market is positively influenced by regulation through reference pricing and opportunities for product differentiation. Elements of product differentiation within generics promote diffusion, but do not reduce prices. And, health insurance does not capitalize fully on the cost advantage of generic medicines. **CONCLUSIONS:** The results suggest that the relationships between the dynamics of original drug prices, patent expiry, and generic competition are complex and differentiated across countries. The level of generic penetration remains low in some of them and a sharp contrast exists between countries.

PCV152

PRESCRIPTION PATTERNS OF ANTIHYPERTENSIVE AGENTS IN T2DM PATIENTS VISITING TERTIARY CARE CENTRE IN NORTH INDIA

Raval A[1], Dhanaraj E[2], Bhansali A[3], Yadav R[2]

[1]*West Virginia University, Morgantown, WV, USA,* [2]*National Institute of Pharmaceutical Education and Research, Mohali, India,* [3]*Post-Graduate Institute of Medical Education and Research, Chandigarh, India*

OBJECTIVES: Hypertension management is of a paramount importance in diabetic patients for cardiovascular risk reduction. Hence, we evaluated prescribing pattern of antihypertensive in T2DM (type 2 diabetes) patients and compare with existing recent guidelines. **METHODS:** A cross-sectional study involving evaluation of all T2DM patients referred to endocrinology unit at tertiary care centre for hypertension, comorbid complications, and recording prescription. Utilization of 5 different antihypertensive drug classes was compared for all patients receiving 1, 2, 3, 4, or more drugs. Logistical regression was used to assess likelihood of prescription of drugs and/or therapy for specific conditions mentioned in the guidelines. **RESULTS:** Out of 1358, T2DM enrolled patients 1186 (87%) had hypertension (males 52%, females 48%). The median duration (IQ) of hypertension diabetics was 4 (1-10) years. A total of 25% patients had controlled BP and 75% with uncontrolled blood pressure (13% isolated systolic hypertension, 6% isolated diastolic hypertension, and 55% both elevated). Overall, ACE inhibitors (ACEIs) were prescribed the highest (59%) followed by angiotensin receptor blockers (ARBs) (52%), calcium channel blockers (CCBs) (29%), diuretics (27%), and beta-blockers (14%). Overall, 55% of T2DM patients were on polytherapy, 41% on monotherapy, and 4% had no antihypertensive treatment. Polytherapy was more predominant with age, duration of diabetes, duration of hypertension, and comorbid complications. **CONCLUSIONS:** Although prescribing pattern of antihypertensive showed adherence to existing evidence-based guidelines, higher proportion of uncontrolled hypertensive patients was found.

PCV153

INITIAL ANTICOAGULATION THERAPY IN PATIENTS WITH VENOUS THROMBOEMBOLISM AND IMPAIRED RENAL FUNCTION: RESULTS OF AN OBSERVATIONAL STUDY

Boettger B[1], Wehling M[2], Bauersachs R[3], Amann S[4], Wilke T[1]

[1]*IPAM - Institut für Pharmakooekonomie und Arzneimittellogistik, Wismar, Germany,* [2]*Universität Heidelberg - Medizinische Fakultät Mannheim, Mannheim, Germany,* [3]*Klinikum Darmstadt GmbH, Darmstadt, Germany,* [4]*Staedtisches Klinikum Muenchen GmbH, Muenchen, Germany*

OBJECTIVES: Patients undergoing initial therapeutic anticoagulation after a venous thromboembolic event (VTE) with severely impaired renal function (RI-VTE-patients) are at high risk of accumulating the anticoagulants resulting in an increased risk of bleeding events. Current guidelines/approved summary of product characteristics (SPC) recommend usage of specific anticoagulants only, monitoring of aXa-activity, and/or dose-adjustment (in the case of enoxaparin) for initial therapeutic anticoagulation of RI-VTE-patients. This study investigates the treatment of German RI-VTE-patients and evaluates whether guideline/SPC recommendations are implemented in the practice of real life care. **METHODS:** We conducted a chart review in 5 German hospitals. All VTE patients treated in these hospitals from 01/01/2007-31/12/2011 were included. RI was defined as CrCl<30ml/min. Treatment did not conform to the recommendations in guidelines/SPCs, if: a) A drug was used that is contraindicated according to the SPC; b) The recorded daily dose of enoxaparin was higher than the recommended weight-adjusted dose. **RESULTS:** Of 5,263 VTE patients identified, 709 (13.5%) cases could not be documented due to missing charts (601) or no documented creatinine serum levels (108). Of the remaining 4,554 patients (mean age ±SD 67.4 years ±15.7; 53.0% female; weight 80.2 kg ±20.0; 54.5% deep VT), 337 (7.4%) had a mean estimated GFR<30ml/min; additionally 1,630 (35.8%) had a minimum eGFR<60ml/min. In 19 (5.6%) of these cases, patients were treated with a drug not recommended for use, 21 (6.2%) did not receive any initial anticoagulation treatment and 91 (27.0%) received a higher than recommended dosage of enoxaparin. Additionally, for 22 patients (6.5%) receiving enoxaparin, no weight information was recorded and it is therefore unlikely that the dosage was adjusted correctly. **CONCLUSIONS:** VTE treatment in RI-VTE-patients differs remarkably from labelled recommendations; over-dosage of enoxaparin is common. It seems fair to assume that these patients are facing a higher risk of adverse reactions in particular bleeding events.

PCV154

ATTITUDES OF PHYSICIANS TOWARD IMPLEMENTING SHARED MEDICAL APPOINTMENTS AT NATIONAL GUARD FAMILY MEDICINE CENTERS IN RIYADH

Alhowimel MH

National Guard Health Affairs, Riyadh, Saudi Arabia

OBJECTIVES: To determine the attitude of physicians in three family medicine centers (FMCs) at the National Guard Health Affairs (NGHA) toward the implementation of the Shared Medical Appointment (SMA) approach compared to the current individual appointment approach. **METHODS:** A cross-sectional survey study was conducted by distributing a structured questionnaire among the 79 FMCs' physicians at NGHA in Riyadh, Saudi Arabia. The first part of the questionnaire was an introduction, the second part has requested socio-demographic information, and the third part consisted of 12 statements measuring physicians' attitude toward implementing SMA and the current individual appointment approach. Responses were measured using 5-points Likert Scale. Seventy-nine self-administered questionnaires were distributed to physicians' mail-boxes and the completed questionnaires were collected from mail-boxes at each clinic. Data collection was done from December 10 to 15, 2011. Data were entered and analyzed by the Statistical Package for Social Science (SPSS.16). Descriptive analysis was conducted using frequencies, percentages, and mean (SD). Inferential analysis was conducted using one way ANOVA and Mann-Whitney tests to detect statistically significant differences in responses. A significance level of 0.05 was used. The validity and reliability of the instrument was measured using Pearson's correlation and Cronbach's Alpha, respectively. **RESULTS:** A totla of 78 valid questionnaires were returned yielding a response rate of 99 %. The average attitude scores were 3.75 toward the SMA approach and 2.98 toward the current Individual Appointment approach. The average attitude scores were significantly different at all dimensions (Mann Whtiney P-value < 0.001) in favor of SMA except for patient privacy which was in favor of current individual appointment approach. Subgroup analysis by socio-demographic variables indicated that males and Saudi national physicians have higher positive attitude toward SMA. **CONCLUSIONS:** There is positive attitude of all physicians toward SMA compared to the current individual appointment approach. This attitude was affected by gender and nationality.

PCV155

ANALYSIS OF RE-HOSPITALISATIONS FOR STROKE AND TRANSIENT ISCHEMIA RECURRENCE AND ASSOCIATED COSTS IN THE BURGUNDY REGION IN FRANCE

Marty R[1], Jouaneton B[2], Giroud M[3], Mougin P[4], Roze S[1]

[1]*HEVA HEOR, Lyon, France,* [2]*HEVA, Lyon, France,* [3]*CHU Dijon, Dijon, France,* [4]*Bayer HealthCare Pharmaceuticals, Loos, France*

OBJECTIVES: To assess the re-hospitalisations rates for stroke (ST) and transient ischemia (TI) recurrences as well as related inpatient costs through the French national Hospitals Medical Health Information database (PMSI). **METHODS:** A retrospective hospital administrative-claims analysis was carried out based on the Diagnoses Related Groups (DRG)-data of four hospitals within the Burgundy region along the 2006-2011 period. In each of the four hospitals, three cohorts were followed up over two years. Patients were excluded if any related hospitalisation for ST or TI occurred in the preceding two-years (identification through ICD-10 diagnosis codes). One and two-year re-hospitalisations rates for ST and/or IT were calculated.