PR2

COMPETITION AND STRATEGIC REGULATION IN THE ARGENTINE PHARMACEUTICAL MARKET: A COMPARATIVE STUDY OF SIX THERAPEUTIC CLASSES

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OBJECTIVES: To analyze how main determinants of competition in six therapeutic classes of medicines provided by SUS appeared in the ninth position of econometric models of ordinary least squares with year fixed effects and robust standard errors. The independent variables explain the market shares of each product brand per therapeutic class, explained by prices, participant active principles, and a set of variables capturing product differentiation mechanisms implemented by pharmaceutical firms to differentiate their therapeutic classes. This research was exposed to a vector of variables capturing the structure of the regulatory framework. RESULTS: In general, prices do not show to be significant determinants of market shares, unlike factors associated with the process of presentation of product differentiation that may provide benefits to the development of brand loyalty and adherence, even with relatively higher prices. On the other hand, the inclusion of new active principles in the Compulsory Health Insurance (SHI) is possible to decrease disease activity and obtain a significant cost-reduction in patients with low disease activity and its costly treatments are significantly affecting the economic sustainability of the Brazilian Healthcare System, including a new guideline to elaborate HTA studies for the best economic value, the most efficient, and the least cost-saving.

Pricing and Health System Studies

PR3

POTENTIAL PUBLIC RESOURCE SAVINGS IN BRAZIL: THE SOMATROPIN CASE

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OBJECTIVES: Somatropin is provided in 4 and 12IU presentations by the Brazilian Unified Health Program (SUS) for the treatment of Hypopituitarism (HP) and Turner Syndrome (TS). The 4 and 12 IU presentations are the most expensive, reducing market shares. In addition, the impact of these policies rests heavily on the structure of competition in each therapeutic class. CONCLUSIONS: The main health policy recommendations suggest: the need to develop new areas of collaboration with the pharmaceutical sector for enhancing competition in markets with higher levels of concentration, facilitating the evaluation of policies on generic medicines, and successfully regularizing the structure of drugs and products available through the CHF.

PR4

IMPACT OF MAJOR CHANGES TO THE BRAZILIAN HEALTH CARE SYSTEM UTILIZING THE HEAT MAPS PROJECT

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OBJECTIVES: To understand the extent of various changes to the Brazilian Healthcare System, including a new guideline to elaborate HTA studies for Medical Devices, governmental price regulations, and demographics. METHOD: The Heat Maps project provided information from 17 major health care systems around the world, including Brazil. The Heat Maps capture an overview of the healthcare system settings, reimbursement, HTA bodies and evaluation, evidence requirements, access, value perception, and key trends and opportunities. This data was gathered through a partnership between Pharminter and Ethicon Inc. A targeted literature review was conducted to collect information regarding these topics. If gaps in the knowledge were identified after this review, interviews with local experts were conducted. Through our methodology and analysis, the following results were identified. Brazil is growing and enjoys the largest economy and most attractive medical device market in Latin America growing 13.6% (CAGR) over the decade. Healthcare expenditure in Brazil is composed of 67.5% public and 32.5% private expenditure. In 2015, the Brazilian government has invested approximately R$200 Million in the public sector, and 51 Million of those also have private insurance. New laws promote the development and purchasing of national products. Both the public and private sectors are regulated by the Ministry of Health (MoH) and ANVISA (premarket regulatory approval). Pricing is negotiated through tenders and purchasing negotiation, and differ by region. At this time Medical Devices do not have price regulation, but in 2015 a working group was created by the MoH in order to evaluate and regulate medical device prices. HTA bodies are currently being constructed in an attempt to construct a new regulatory framework. New guidelines were prepared specifically for medical devices (HTA by CONITEC) in order to promote a better evaluation for medical devices.

RESEARCH PODIUM PRESENTATIONS – SESSION II

BUDGET IMPACT AND COST STUDIES

B11

COST REDUCTION FOR A HEALTH SYSTEM THROUGH DECREASING NUMBER OF ELIGIBLE PATIENTS FOR BIOLOGICAL THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS USING THE TREAT TO TARGET RECOMMENDATIONS

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OBJECTIVE: Biological therapy is a major therapeutic tool to prevent clinical and radiographic progression of rheumatoid arthritis (RA). The high cost of biologics makes it uncertain if it is possible to use extensively in Colombia. The aim of this study was to describe the reduction in Disease Activity Score 28 (DAS28) in patients with moderate-severe disease activity (MDA, SDA) by using strictly a Treat to Target (T2T) strategy for 2 years. METHODS: A descriptive cross-sectional study was performed. Records of patients with moderate or severe disease activity (MDA, SDA) were reviewed; patients were considered eligible for biological therapy. Patient demographics and outcome measures were compared between T2T and other strategies. Results: A total of 122 patients were included in this study, 453 (72.8%) women and 169 (27.2%) men. These patients came in moderate or severe disease activity with DAS28 3.5 in average, at 24 months with T2T strategy using only conventional DMARD 467 patients (75.1%) got remission/low disease activity status with a DAS28 2.6 in average. The costs of biological therapy finishing 2014 on average was 16.59 Us dollars/year/patient, and for 467 patients amount in projected costs-savings of preventing use of biologics was approximately 5'824.849 US dollars/year, ranging between the cheaper biological and the most expensive [2'975.228 and 7'749.865 US dollars/year]. The results show that the high cost of biologics makes it uncertain if it is possible to decrease disease activity and obtain a significant cost-reduction in RA by using only conventional DMARDS in a model with defined therapeutic goals like T2T and optimizing a multidisciplinary approach.

B12

TREATMENT PATTERNS AND BUDGET IMPACT OF CHEMOTHERAPY DRUGS IN A BRAZILIAN PRIVATE HEALTH PLAN (PHP)

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OBJECTIVES: According to GLOBOCAN 2012 and WHO, 14.1 million new cancer cases and 8.2 million deaths occurred worldwide in 2012. In Brazil, the incidence of the disease is also increasing as population ages, with 57,000 new cases of cancer expected in 2015. Despite the significant impact of disease and need for monitoring and prevention, epidemiological and economic data that would help decision makers to evaluate unmet needs are still scarce. This study aims to study the epidemiological aspects; economic impact and treatment patterns in a private health insurance plan with approximately 150,000 lives. METHODS: We retrieved data from Evidencias-Kantar Health private market administrative claims database from June 2012 to June 2013. After patient de-identification, data on diagnosis, type of drug, and line-of-treatment were collected. All ICDS and treatment patterns were reviewed by an oncologist. Health economist specialists priced the treatments (ex-factory price) in order to assess the budgetary impact. Only oncologic drug costs were considered – anitmetics, corticosteroids and equipment were not included. Exchange rate was US$1.30 = 31.14 BRL. RESULTS: A total of 275 distinct codes of cancer treatments were identified. The budget impact for cancer treatments was USD 1,464,958, (most impacting diseases: USD 436,908 for breast, USD 428,90 for colorectal and USD177,131 for non-Hodgkin lymphoma). Considering the average cost per patient treated, kidney (USD27,970), colon (USD19,495) and brain cancer (USD17,809) were the most expensive ones. Treatment pattern will be described in details in tables. CONCLUSIONS: The increasing incidence of cancer and its costly treatments are significantly affecting the economic sustainability of the healthcare sector. This study maps the most prevalent and costly cancer treatments under a private insurance perspective in Brazil.
FINANCIAL IMPACT OF HOSPITAL EXPENDITURE IN CHRONIC DISEASES FOR SEGURO POPULAR

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OBJECTIVES: To evaluate the level of total expenditure in hospital services for cardio-vascular (CVD), malignant tumors (MT) and diabetes financed by Seguro Popular (SP) for 2004-2012 in order to evaluate its midterm financial sustainability. METHODS: Hospital costs were estimated by the Mini-SHAH. Related hospital discharges were estimated from the SAEH for 2004-2012. Multiplication of both data generated the cost per ICD-10. The product was then grouped by GBD. Total hospital expenditure for SP, obtained from SINAIS for 2004-2012, was categorized by the selected NCD. The impact on the public budget that represents this expenditure was estimated. RESULTS: Mexico is one of the countries with the highest prevalence of child and adult overweight and obesity (O&O). That situation imposes a great pressure on the public healthcare system due to the high cost of diseases related to obesity. The study was approved by the Ethics Committee of Hospital Universitario de la Frontera, Tumaco, Colombia.

BIV HOSPITALIZATION COSTS OF TYPE 2 DIABETES MELLITUS (T2DM) PATIENTS IN A PUBLIC HOSPITAL IN SAO PAULO, BRAZIL

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OBJECTIVES: Diabetes is considered an outpatient care condition, manageable in the primary care setting, but which complications may lead to hospitalization. There is limited data on the costs of patients hospitalized due to diabetes in Brazil. We aimed to estimate the percentage of type-2 diabetes mellitus (T2DM) patients who were hospitalized and the mean cost per hospitalization within a public hospital in Brazil (SUS). METHODS: T2DM patients followed at the Hospital das Clínicas de Universidade Federal do Pará (HC-UFPF) between 2011 and 2014 were eligible. Data from the last year of treatment were collected and validated within medical charts. We considered the following costs: hospitalization, medications, transport, and average cost per day of hospitalization. Exchange rate was 1.00USD = 3.21BRL. The study was approved by HC-UFPF IRB. RESULTS: A total of 728 patients with T2DM were evaluated, of which 58 (2.6%, 11 females and 17 males) were hospitalized due to eight different causes. Mean age was 64 years (44 to 84). Main reason for hospitalization was cardiovascular related problems (38.5%), followed by decompenesated diabetes treatment (17.0%) and kidney problems (9.4%). Average daily cost ranged from 907BRL (284USD) to 21BRL. The study was approved by the Ethics Committee of Fundación Valle del Lili, Cali, Colombia.

CARDIOVASCULAR DISEASE & DIABETES RESEARCH STUDIES

CV1 ASSOCIATION OF ADRERENCE STATUS AS MEASURED USING TWO SINGLE-ITEM PHYSICIAN-ADMINISTERED METHODS WITH CARDIOVASCULAR RISK IN PATIENTS TAKING ANTIHYPERTENSIVE MEDICATION

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OBJECTIVES: In patients with hypertension, non-adherence to prescribed treatment may contribute to a significant increase in cardiovascular risk. The aims of this study were (1) to examine if two single-item physician-administered adherence scales are predictive of cardiovascular risk and (2) to evaluate whether adherence to antihypertensive medication is associated with treatment effectiveness in patients with hypertension. METHODS: A total of 132 patients (57% men), mean age 57±14 years, were included in our analysis. The study was approved by the Ethics Committee of Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil.

CV2 APRAZIN IN PATIENTS WITH ATRIAL FIBRILLATION: PATIENT CHARACTERISTICS OF THE LATIN AMERICA COHORT FROM A MULTINATIONAL CLINICAL TRIAL

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OBJECTIVES: Patients with Atrial fibrillation (AF), have a five-fold increase in the risk of stroke. Treatment for AF include stroke prevention therapy Vitamin K antagonists (VKAs) have shown to prevent stroke in AF patients. Apixaban, a novel oral direct factor Xa inhibitor was studied in AF patients whom VKA therapy was unsuitable. Apixaban demonstrated clinical benefit in stroke or systemic embolism reduction without impacting the risk of major bleeding or intracranial hemorrhage. PATIENTS AND METHODS: The Latin American (LA) cohort population are presented. METHODS: Patients with AF at an increased risk for stroke and whom VKA therapy was unsuitable were randomized to receive apixaban (5 mg twice daily) or aspirin (81 to 324 mg) for 5 years. Data from 36 countries from September 2007 through December 2009. Five countries were from LA. Argentina, Brazil, Chile, Colombia, and Mexico. Patient characteristics from the LA cohort are presented relative to the overall trial population. 1155 patients in the trial, 1185 were from LA (21.2%). Mean age was similar, 71.5 and 70 for LA and overall cohort respectively. 55% and 58% were males for LA and overall cohort respectively. The LA and overall cohorts had similar rates of prior stroke or TIA, diabetes and recent hypertension, receiving treatment at enrollment. Mean CHADS2 score at enrollment was 2.0, for the apixaban arm and 2.1 for the ASA arm, which is the same for cohorts. Other baseline characteristics were similar. Region subgroup analysis per no statistically significant (p > 0.05) interactions between treatment effects and geographic region. CONCLUSIONS: Baseline demographic and disease characteristic data from the LA cohort were similar to that of the trial population. Treatment outcomes are expected to be consistent since interaction between treatment effects and geography was not significant.

CV3 ARETAES: RETROSPECTIVE STUDY OF MEDICATION USAGE PATTERNS FOLLOWING THE DIAGNOSIS OF TYPE 2 DIABETES IN LATIN AMERICA

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OBJECTIVES: The delay in treatment of hypercholesterolemia and/or statins in patients with type 2 diabetes mellitus (T2DM) and assess the time elapsed from diagnosis to treatment initiation and intensification when goals were not achieved in real world practice. METHODS: A retrospective study was performed on 662 medical records of patients with T2DM, diagnosed 24 to 48 months prior to sign out of adherence consent. Kaplan-Meier test was used to examine time to treatment and cumulative treatment probability and multivariable logistic regression examined factors associated with such treatment. RESULTS: At diagnosis, patients had a mean age of 53 years, 54% had hypertension, 46% were male and 25% had hypercholesterolemia. During the 2-year follow-up period, 93% were treated with OAHAs but only 29% of those eligible for statin therapy received statins. Time elapsed before first prescription of OAHAs was 59.2±14.8 (median±SD) and 1 (±31) (median [IQR]) days and 132 (±130) days for statins. No variables were associated with OAHA initiation but median [IQR] days for statin. No variables were associated with OAHA initiation but median [IQR] days for statin. No variables were associated with OAHA initiation but median [IQR] days for statin.

CV4 ECONOMICS OF DIABETES MELLITUS: THEORY AND EVIDENCE FOR BRAZILIAN DATA IN 2008

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INTRODUCTION: Diabetes Mellitus (DM) is characterized by the high level of blood glucose. Ministry of Health data estimated that Brazil had about 10 million DM cases

A809