was done. RESULTS: TLR Avoided probability with DCB was 0.856 vs. 0.600 for PTA. DCB intervention decreased cost by $253.78 vs. $373 for PTA, which were $876 vs. $856. In univariate sensitivity the ICER the total DCB cost was tested from -10% to +10%, obtaining ICER values that were from $2.075 to $3.637. In the Probabilistic Sensitivity analysis, it was a 24% probability for DCB to be dominant or cost-saving, and 98.3% of been under 3 GPD for Capes. When conducted this analysis with 98.3% of been cost-effectiveness when compared to PTA and a 24% probability of been cost-saving.

PRICING AND HEALTH SYSTEM STUDIES

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 targets - analgesics, tranquilizers, peptic ulcer treatment, cholesterol treatment, benign prostatic hypertrophy and ACE inhibitors - were affected by regulations and public policies implemented at national level during the last decade in the pharmaceutical market in Argentina. METHODS: The database corresponds to the annual information on retail sales in the Argentine pharmaceutical sector generated by IMS for the period 2005-2012. The estimation strategy takes the form of econometric models of ordinary least squares with year fixed effects and robust standard errors. The dependent 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 in the therapeutic class. The regression 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 expansion of product differentiation, which strongly promote 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 Program (CHP) will act as a boost for priority prescriptions, while the production of generic medicines increases competition, 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, 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 CHP.

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 System (SUS) for the treatment of Hypopituitarism (HP) and Turner Syndrome (TS). The presentations are available in the SUS and the most expensive was 2.975.228 US dollars/year. US dollars/year. The objective was to provide a less costly treatment and/or less somatropin waste.

METHODS: The registered medicines were obtained from the National Health Surveillance Agency (Anvisa) and their stability periods. Market segments were obtained from hospitals and clinics. The average price of a product/brand per therapeutic class in each region was exposed to a vector of variables capturing the structure of the regulatory framework. RESULTS: General, prices do not show to be significant determinants of market shares, unlike factors associated with the expansion of product differentiation, which strongly promote 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 Program (CHP) will act as a boost for priority prescriptions, while the production of generic medicines increases competition, 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, 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 CHP.

BUDGET IMPACT AND COST STUDIES

S11

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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OBJECTIVES: Biological therapy is a major therapeutic tool to prevent clinical and radiological progression of rheumatoid arthritis (RA). This therapy is expensive and produces high cost of it is not 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) therapy strategy and cost-saving methods. METHODS: A descriptive cross-sectional study was performed. Records of patients with moderate or severe disease activity (MDA/SDA) were reviewed; patients were considered potential candidates for biological therapies and were followed-up under T2T and DAS28 3.5 in average, at 24 months with T2T strategy using only conventional DMARDs 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 16.595 US dollars/year/patient, and for 467 patients amount in projected cost/savings of preventing use of biologics was approximately 5.824.849 US dollars/year, between the cheaper biological and the most expensive [2975.228 and 7499.665 US dollars/year]. RESULTS: Reduction in costs associated with RA was achieved, reducing the cost of 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.

S12

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

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OBJECTIVES: According to GLORIASCAN 2012 and 2014, Brazil has 200 Million people in the public sector, and 51 Million of those also have private health plans. 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 stakeholders were conducted. RESULTS: 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 next decade. Health expenditure is valued at US$502 per capita. Brazil has 200 Million people 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 (pharmaceutical market regulatory authority). 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 establish a price regulation model for medical devices’ prices. HTA studies are currently being conducted to assist in the development of new technologies and market access. New guidelines were prepared specifically for medical devices (HTA by CONTEC in order to promote a better evaluation for medical devices.

RESEARCH PODIUM PRESENTATIONS – SESSION II

A808
FINANCIAL IMPACT OF HOSPITAL EXPENDITURE IN CHRONIC DISEASES FOR SEGUR SO POPULAR

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OBJECTIVES: To evaluate hospital 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 from the SP database and obtained from the SAEH for 2004-2012. Multiplication of both data generated the cost per ICD. The product was then grouped by GBD. Total hospital expenditure for SP, obtained from SINAIS for 2004-2012, was distributed using the cost per GBD. Then the proportion of hospital expenditure related to CVD, MT and diabetes estimated was obtained. 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 into the demand of health care for non-communicable chronic diseases (NCD) particularly diabetes, MT and CVD. The average annual hospital expenditure of these groups of diseases represents about USD$273 million in 2012 (9.7% of hospital expenditure). Malignant tumors that contributed the most were breast and cervical cancer with 90% of the total expenditure for this group. Acute myocardial infarction represents 66% of total expenditure for cardio-vascular. Under the status quo an increase of 65% in the cost of this group of diseases is expected for 2018. CONCLUSIONS: Findings show an increased financial burden for SP generated by the selected NCD. The impact on the public budget that represents this level of hospital expenditure would threaten the sustainability of the SP if current trends hold. Given the demographic transition and level of O&O as risk factors for development of NCD in the coming years it is necessary to strengthen prevention and health promotion to reduce both new cases of NCD and complications in order to decrease its future impact on the SP budget.

B4 HOSPITALIZATION COSTS OF TYPE 2 DIABETES MELLITUS (T2DM) PATIENTS IN A PUBLIC HOSPITAL IN SP, 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 of Universidade Federal do Paraná (HC-UFFPR) between 2011 and 2014 were eligible. Data from the last year of treatment were collected and validated within medical charts. We aimed to estimate the hospital costs, hospitalization frequency and cost per day of hospitalization. Exchange rate was 1.00USD = 3.21BRL. The study was approved by HC-UFFPR RB. RESULTS: A total of 728 patients with T2DM were evaluated, of which 38 (5.2%, 22 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 (58.5%), followed by decompensated diabetes treatment (17.0%) and kidney problems (9.4%). Average daily cost ranged from 500.00BRL (~600USD) to 21.00BRL (~26USD). Total hospitalization cost for 38 hospitalized patients was 685,058BRL (~213,414USD) and mean length of hospitalization was 10 days (1 to 30 days). Mean cost per patient was 18,028BRL (~5,616USD). CONCLUSIONS: Hospitalized patients with T2DM represent a significant burden to healthcare payers. Hospitalization due to diabetes and its complications may benefit from being covered by the Brazilian Public Healthcare System (SUS), which hinders the estimate of the burden for the system as a whole.

CARdiovascular DISEASE & DIABetes RESEARCH STUDIES

CV1 ASSOCIATION OF ADMISSION 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 single-item physician-administered admission scales are predictive of cardiovascular risk and (2) to evaluate whether adherence to antihypertensive treatment was associated with the above treatment-related endpoints in patients with type 2 diabetes mellitus (T2DM) and cardiovascular risk over 90 days. METHODS: Pooling data from seven observational studies, this analysis included 8,438 hypertensive patients taking valsartan. A ten-year cardiovascular risk (CVR) score was estimated using a scoring system proposed by the SCORE project in Europe. CVR score considered the following variables: age, total cholesterol, current smoking status, systolic blood pressure, and sex. At baseline and 90 days, physicians administered two single-item measures of adherence: the Basel Assessment of Adherence Scale (BAAS) and the Visual Analogue Scale (VAS). RESULTS: At 90 days, males (4,257) had a significantly higher CVR than females (4,091) (p<0.001). For BAAS-identified adherent patients, CVR decreased significantly by 2.6% from baseline to 90 days (p-value<0.001). For BAAS-identified non-adherent patients, a significant but smaller decrease in CVR of 1.5% was observed (p<0.001). For VAS-identified adherent patients, CVR decreased significantly by 4.4% from baseline to 90 days (p<0.001). However, a significant decrease of 4.3% (p<0.001) was also observed for VAS-identified non-adherent patients. CONCLUSIONS: Patients identified as adherent using the first item of the BAAS showed significantly improved 10-year cardiovascular risk scores after 90 days compared to patients identified as non-adherent. The VAS score was not sufficiently sensitive to determine the effect of adherence on cardiovascular risk score.

CV2 APOIXAN 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 who VKA therapy was unsuitable. Apixaban demonstrated clinical benefit in stroke or systemic embolism risk reduction without impacting the risk of major bleeding or intracranial hemorrhage. Patient characteristics of the Latin America (LA) cohort from the international apixaban trials 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) over 1 year. Results 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. 10559 patients in the trial, 1185 were from LA (21.2%). Mean age was similar, 71 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 total and ongoing 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 protocol showed statistically significant (p<0.1) interactions between treatment effects and geographic region. CONCLUSIONS: Baseline demographic and disease characteristics data from the LA cohort were similar to that of the clinical trial population. Results, in terms of safety and efficacy, given the total trial population size, are expected to be consistent since interaction between treatment effects and geography was not significant.

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

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Objectives: To examine the initiation of oral antihyperglycemic agents (OAHAs) and/or statins in patients with type 2 diabetes mellitus (T2DM) and assess the time elapsing from diagnosis to treatment initiation and invitation to follow-up. Patients and Methods: In the present study, are expected to be consistent since interaction between treatment effects and geographic region. CONCLUSIONS: Baseline demographic and disease characteristics data from the LA cohort were similar to that of the clinical trial population. Results, in terms of safety and efficacy, given the total trial population size, are expected to be consistent since interaction between treatment effects and geography was not significant.

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