OBJECTIVES: To estimate the budget impact of saxagliptin/metformin XR fixed-dose combination introduction as a treatment option for patients with type 2 diabetes mellitus (T2DM) compared to the current situation, in Chile. METHODS: An MS Excel-based budget impact model assuming coverage for one million people. The time horizon was three years and the analysis perspective was the National Insurance System in Chile (FONASA). Prevalence in 2011-2012 was obtained from published literature. Pharmaceutical expenses of oral anti-diabetic agents were analyzed excluding other medical costs. The cost of oral anti-diabetic agents was based upon list prices adjusted to co-payments, expressed in local pesos (COP) 2012 (exchange rate COP 1,155 = 487.8 USD). The market share of the different drugs was based upon QUALIDIA Database, market studies and data provided by Bristol Myers Squibb. The budget impact is reported in terms of annual budget and per-member per-month (PMPM). A Monte Carlo simulation (10,000 iterations) was done as part of the sensitivity analysis. RESULTS: The net budget impact estimated for the introduction of saxagliptin/metformin XR combined was -2,772,663 for the first year, -25,680,312 for the second year and -81,609,192 for the third year; the cumulative net budget impact was -110,062,166. PMPM was -50.23, -74.14 and -66.8 for the first, second and third year respectively. PPMF was -9.2, -18.50 and -270.3 each year. The cumulative impact in the total annual budget for oral anti-diabetic agents represented an increase of 1.6%. Monte Carlo simulation showed that cumulative budget impact varied from 1.1 to 1.8%. CONCLUSIONS: This study showed that the introduction of saxagliptin/metformin XR combined, as a third line treatment with T2DM, into the national health insurance system of Chile (FONASA) would have a minimal budgetary impact.

PDB25 EVALUATION OF THE PHARMACY BUDGET IMPACT OF ALOGLIPTIN PLUS PIOGLIATIZONE FIXED DOSE COMBINATION IN THE TREATMENT OF TYPE-2 DIABETES MELLITUS

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OBJECTIVES: To evaluate the impact on pharmacy costs of adding alogliptin to a fixed dose combination of pioglitazone plus DPP4i therapy in the treatment of T2DM in the population of the National Health System of Chile.

METHODS: A Monte Carlo simulation (10,000 iterations) was performed on 364 patients comparing the once-a-day administration of lixisenatide 20μg vs alogliptin, a novel DPP4i, plus pioglitazone fixed dose combination (FDC) therapy as part of the sensitivity analysis.

RESULTS: The budget impact of lixisenatide and alogliptin fixed dose combination was -2,772,663 for the first year, -25,680,312 for the second year and -81,609,192 for the third year; the cumulative net budget impact was -110,062,166. PMPM was -50.23, -74.14 and -66.8 for the first, second and third year respectively. PPMF was -9.2, -18.50 and -270.3 each year. The cumulative impact in the total annual budget for oral anti-diabetic agents represented an increase of 1.6%. Monte Carlo simulation showed that cumulative budget impact varied from 1.1 to 1.8%.

CONCLUSIONS: This study showed that the introduction of saxagliptin/metformin XR combined, as a third line treatment with T2DM, into the national health insurance system of Chile (FONASA) would have a minimal budgetary impact.

PDB26 REDUCING BUDGET IMPACT TO MEXICAN PUBLIC HEALTH CARE SYSTEM WITH THE USAGE OF A NOVEL GLP-1 ANALOGUE FOR UNCONTROLLED T2DM PATIENTS ON INSULIN REGIMEN

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OBJECTIVES: To estimate annual savings in Mexican public health care system by the usage of liraglutide for the treatment of uncontrolled type 2 diabetes mellitus patients on basal insulin.

METHODS: Two different GLP-1 analogues (lixisenatide vs exenatide -on National Formulary-) were evaluated from the perspective of a public health system. A cost-minimization and budget impact analysis were conducted. Clinical efficacy was proved to be similar according to reported outcomes on a head-to-head clinical trial which included Mexican patients, thereby allowing a direct comparison of liraglutide vs exenatide 10μg bid. Clinical response on 364 patients was evaluated, no statistically significant difference on reduction for fasting and postprandial glucose levels, as well as corporal weight loss, was reported; adverse events appeared to be significant more on liraglutide group than in the exenatide group. Direct costs were considered on a decision tree with a temporary horizon of one year. No discount rate was included. Sensitivity analysis results on variables with highest degree of uncertainty were developed. Budget impact analysis was applied to different scenarios varying the estimated number of candidate patients to GLP-1 analogue treatment based on recent results reported on National Survey of Health and Nutrition 2012 (ENSEANUT 2012) RESULTS: Baseline annual savings account for 0.83% USD. Budget impact reduction was established in 0.0008%. For general public expenses in health and 0.0099% for therapeutic goods expenses in main public health institution in Mexico. Sensitivity analysis, showed robustness with base case. Market share scenarios, show that the usage of liraglutide may result in lower impact to institutional budget (5.5 million USD for 0% PP to 5.2 million USD for 100% PP) CONCLUSIONS: Glycemic goal level in type-2 diabetes patients can be achieved with the synergy of insulin and liraglutide with a corporal weight reduction and cost savings compared to exenatide usage.

PDB27 VALUE ASSOCIATED WITH PHARMACY AND MEDICAL BENEFIT INTEGRATION IN A COMMERCALLY INSURED DIABETIC POPULATION

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OBJECTIVES: To quantify the impact on medical costs of having an integrated medical and pharmacy benefit in the Diabetes Mellitus (DM) population.

METHODS: Patients who had at least two diabetes ICD-9 codes or two diabetes medications refills between January 1, 2006 and December 31, 2006 were included. Patients with a diabetes diagnosis or diabetes medications within one year before the index date were excluded to ensure a treatment-naive DM population. Only patients continuously enrolled from January 1, 2006 to December 31, 2011 were included in this retrospective cohort study. The Gendem model with Gamma distribution was utilized to adjust for the baseline disease comorbidity, age, gender, and account type differences. A total of 2090 patients met the eligibility criteria: 1087 in the integrated group (Members using an integrated medical and pharmacy benefit) and 1003 in the non-integrated group (Members using medical and pharmacy benefits from separate providers).

RESULTS: Average annual medical costs were $7,299 in the non-integrated group versus $5,561 in the integrated group (p<0.001). From year 1 to year 5, the growth of adjusted mean medical costs was 53% in the non-integrated group compared to 47% in the integrated group. The adjusted mean medical costs were higher in the non-integrated group (N=1003) than in the integrated group (N=1087) in each of the five years (p<0.01). While treatment naive DM patients tended to have relatively low inpatient and emergency room costs, in year 1, the integrated group’s mean inpatient and emergency room costs were on average $568 lower when compared to the non-integrated group. This observed difference was not statistically significant.

CONCLUSIONS: The DM patients in the integrated group had lower medical costs and lower inpatient and emergency room costs than their non-integrated counterparts. These results suggest a value to integrated health benefits, further research is required to elucidate the drivers of these observed savings.

PDB29 ESTIMATED COST SAVINGS ASSOCIATED WITH A1C REDUCTIONS IN A LARGE US COMMERCIAL HEALTH PLAN

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OBJECTIVES: To quantify the impact on medical costs of having an integrated medical and pharmacy benefit in the Diabetes Mellitus (DM) population.

METHODS: Patients who had at least two diabetes ICD-9 codes or two diabetes medications refills between January 1, 2006 and December 31, 2006 were included. Patients with a diabetes diagnosis or diabetes medications within one year before the index date were excluded to ensure a treatment-naive DM population. Only patients continuously enrolled from January 1, 2006 to December 31, 2011 were included in this retrospective cohort study. The Gendem model with Gamma distribution was utilized to adjust for the baseline disease comorbidity, age, gender, and account type differences. A total of 2090 patients met the eligibility criteria: 1087 in the integrated group (Members using an integrated medical and pharmacy benefit) and 1003 in the non-integrated group (Members using medical and pharmacy benefits from separate providers).

RESULTS: Average annual medical costs were $7,299 in the non-integrated group versus $5,561 in the integrated group (p<0.001). From year 1 to year 5, the growth of adjusted mean medical costs was 53% in the non-integrated group compared to 47% in the integrated group. The adjusted mean medical costs were higher in the non-integrated group (N=1003) than in the integrated group (N=1087) in each of the five years (p<0.01). While treatment naive DM patients tended to have relatively low inpatient and emergency room costs, in year 1, the integrated group’s mean inpatient and emergency room costs were on average $568 lower when compared to the non-integrated group. This observed difference was not statistically significant.

CONCLUSIONS: The DM patients in the integrated group had lower medical costs and lower inpatient and emergency room costs than their non-integrated counterparts. These results suggest a value to integrated health benefits, further research is required to elucidate the drivers of these observed savings.

PDB30 COST ANALYSIS OF TREATMENT SUCCESS TO ACHIEVE A CLINICALLY RELEVANT COMPETENT ENDPOINT FOR PATIENTS WITH TYPE-2 DIABETES ON ONGOING TREATMENT WITH GLP1 ANALOGUES AND INSULIN IN A CHINESE SETTING

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OBJECTIVES: To describe the cost of treatment success (cost of control) in patients with type-2 diabetes (T2DM) achieving a composite endpoint of blood glucose, weight and hypoglycaemia with liraglutide 1.2mg once-daily as compared to other relevant antidiabetic therapies in China. METHODS: To measure the ability to obtain control of diabetes, a single composite endpoint including HbA1c, blood pressure and weight changes were defined as the relevant endpoint. Costs were adjusted to 2011 levels.