9% of total cost of T2DM. The cost estimate was most sensitive to incidence and event costs of peripheral vascular disease, stroke and severe vision loss. The cost of treatment has increased at a rate similar to inflation, while trends of increased adoption of oral antidiabetic agents have been reported. Secondary hyperparathyroidism (SHPT) affects one of every two patients with type 2 diabetes mellitus (T2DM), and is associated with benefits for the patient and health care system. Costs and life years gained (LYG) offset based on incremental survival rate of compared therapies of Paricalcitol were lower. Based on the present analysis, T2DM places a significant financial burden on the health care system in Mexico, with cost of treating related complications being the main cost driver. Given the model focuses on diagnosed and treated T2DM patients, it is likely that costs of un diagnosed patients would be higher when undiagnosed and untreated patients are considered. Delaying the onset of complications could result in a reduction in costs, as well as benefits for the patient and health care system.

PDB7
DIRECT COSTS OF TYPE 2 DIABETES FROM THE BR AZILIAN PUB LIC HEALTH CARE SECTOR PERSPECTIVE
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OBJECTIVES: This study aimed to quantify the annual financial cost of type 2 diabetes (T2DM) in Brazil and explore the relative contribution of different components of cost.
METHODS: A cost of illness model was developed in Microsoft Excel 2007 to estimate the financial cost of T2DM in Brazil from the public health care payer perspectives. The decision tree in study analysis was employed. Data inputs for prevalence of T2DM (weighted to include only patients who are diagnosed and treated) and related complications, costs and routine management were sourced from the published literature and publicly available databases, where available. Key opinion leader opinion was sought to fill data gaps. Sensitivity analyses were conducted to identify parameters which were most likely to impact overall results when varied. Costs are presented in Brazilian Reals 2012.
RESULTS: The annual cost of T2DM in Brazil is estimated to be 11,275,301,167 BRL. (3.41, 3.02, 2.62) which represents 5.3% of national health care expenditure. Costs of complications were estimated to account for 56% of the total cost of T2DM. Cardiovascular complications accounted for 23% of the total T2DM cost. Diabetes drug costs were estimated to account for 31% of total T2DM health care spending. The overall cost estimate was most sensitive to the laser eye surgery, hemodialysis and cardiovascular complications. The cost of routine care and complications, in a decision consultation. The findings indicate that there is a high economic burden of T2DM for the Brazilian health care system. Cost of treating related complications was the main driver. An even higher burden of the disease is expected if undiagnosed and patients currently not treated were considered. Therefore providing public medical attention. The burden of the disease could considerably be reduced if T2DM related complications were avoided, which not only benefits the health care system but also the patients as well.

PDB8
TRENDS IN HEALTH CARE RESOURCES UTILIZATION, COST AND MEDICATION SELECTION IN THE TREATMENT OF DIABETES
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OBJECTIVES: Diabetes is one of the most common chronic diseases in Canada. It affects about 6.8% of the Canadian population. Treating and managing the disease and its complications is associated with a significant economic burden. The objective of this study was to analyse trends in terms resource utilization, cost and treatment patterns in the management of diabetes.
METHODS: Patients covered by the Quebec public drug program who were prescribed oral antidiabetic agents (OADs) that had a diagnosis of diabetes, in 2005 and were covered continuously by the public drug program for the period from January 2006 to December 2010 were selected. Health care resources in terms of medications (OADs), health care visits and physician visits and hospitalization costs were collected. Each patient was followed during a 5-year study period to be estimated.
RESULTS: A total of 46,194 diabetic patients were included in the study. The mean age of the study population was 65.4 years (SD =12.3) and proportion of male/female was 47% and 53% respectively. Over the study period, annual cost of diabetes medications varied from $151 (SD =464) in 2006 to $372 (SD =546) in 2010 (+16%) while total cost of treatment associated with diabetes varied from $627 (SD =1456) to $715 (SD =1632) (+14%) during that period.
CONCLUSIONS: The five-year study period cost of diabetes treatment has increased at a rate similar to inflation, while trends of increased adoption of oral antidiabetic agents has been reported.

PDB9
COST-EFFECTIVENESS OF PARICALCITOL VERSUS PARATHYROIDECTOMY FOR SECONDARY HYPERPARATHYROIDISM TO CHRONIC KIDNEY DISEASE IN MEXICO
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OBJECTIVES: Secondary hyperparathyroidism (SHPT) affects one of every two Mexican patients with chronic kidney disease (CKD). The objective of this research was to assess cost-effectiveness (CE) of Paricalcitol intravenous administration (IV) versus parathyroidectomy (PTX) from Mexican payer perspective. RESULTS: A decision tree model was used to simulate patient resource usage and survival rate in 5 years time-frame treated with paricalcitol IV and parathyroidectomy based on clinical data in recent published literature. Time-frame begins when a patient is refractory to Calcitriol therapy and physician decides to treat with Paricalcitol or program PTX. Resources and costs for SHPT patients were just directly related to T2DM treatment drug cost, surgery and hospitalization costs and medical supplies link. Unit costs were collected from Mexican Government Databases: IMSS official database, Diagnosis Related Groups from IMSS, Official panel of the Federation; (considered 5% annual discount rate). Incremental Cost-Effectiveness Ratio (ICER) was calculated with treatment costs and life-years gained (LYG) offset based on incremental survival rate of compared therapies of Paricalcitol were lower. Based on the present analysis, T2DM places a significant financial burden on the health care system in Mexico, with cost of treating related complications being the main cost driver. Given the model focuses on diagnosed and treated T2DM patients, it is likely that costs of un diagnosed patients would be higher when undiagnosed and untreated patients are considered. Delaying the onset of complications could result in a reduction in costs, as well as benefits for the patient and health care system.

PDB10
COST-EFFECTIVENESS OF FIXED-DOSE COMBINATION (FDC) OF VILDAGLITIN/ METFORMIN. FOR THE TREATMENT OF DIABETES MELLITUS TYPE 2 IN MEXICO
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OBJECTIVES: Type 2 Diabetes is a major public health care problem in Mexico. Some companies have developed fixed-dose combination (FDC) drugs, to provide a more efficacious treatment to achieve glycemic control. Vildagliptin, a DPPIV inhibitor is an option in combination with the standard treatment of metformin. The objective was to assess the cost-effectiveness of Vildagliptin/Metformin FDC versus other oral treatments available in the public market.
METHODS: Cost-effectiveness analysis of the oral antiabetic treatments available in the public market in Mexico was conducted. The comparisons included the following options: Vildagliptin/Metformin FDC, glibenclamide, and thiazolidinediones. Drug costs were elicited from public tenders and health care services from unitary costs of the IMSS. The perspective is the public health provider and the time horizon is one year.
RESULTS: The use of Vildagliptin/Metformin FDC 50 mg/1000 mg BID cost US $67.00 per patient per month. While metformin alone had a per-patient per-hypoglycemia exceeds US $714.03. Vildagliptin/Metformin FDC is dominant versus pioglitazone, if the cost of fractures incurred by pioglitazone exceeds US $56.56. Drug acquisition costs of Vildagliptin/Metformin FDC are 150% cheaper per patient treated vs rosiglitazone; additionally rosiglitazone is associated with myocardial infarction events.
CONCLUSIONS: Vildagliptin/Metformin FDC is an opportunity for resource optimization in the public sector. This cost effectiveness analysis is not considering other potential adherence benefits which are having with having two treatments in one pill.

PDB11
PROBABILISTIC SENSITIVITY ANALYSIS TO ANALYZE THE COST-EFFECTIVENESS OF ORAL HYPOGLYCEMIC AGENTS IN THE INITIAL ORAL DRUG TREATMENT OF OUTPATIENTS DIAGNOSED WITH TYPE 2 DIABETES IN PRIMARY CARE
PDB12
A HEALTH ECONOMIC ANALYSIS OF THE LONG-TERM OUTCOMES AND COSTS ASSOCIATED WITH USING CANAGLIFLOZIN VERSUS SITAGLITAZIN AS AN ADD-ON TO METFORMIN (MONOTHERAPY FAIL) IN PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) NOT RESPONDING TO TREATMENT WITH METFORMIN
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OBJECTIVES: Canagliflozin (CANA) is a novel inhibitor of the sodium glucose co-transporter 2 in development for treating patients with type 2 diabetes mellitus (T2DM). The objective of this study was to assess cost-effectiveness (CE) of Paricalcitol intravenous administration (IV) versus parathyroidectomy (PTX) from Mexican payer perspective. METHODS: A decision tree model was used to simulate patient resource usage and survival rate in 5 years time-frame treated with paricalcitol IV and parathyroidectomy based on clinical data in recent published literature. Time-frame begins when a patient is refractory to Calcitriol therapy and physician decides to treat with Paricalcitol or program PTX. Resources and costs for SHPT patients were just directly related to T2DM treatment drug cost, surgery and hospitalization costs and medical supplies link. Unit costs were collected from Mexican Government Databases: IMSS official database, Diagnosis Related Groups from IMSS, Official panel of the Federation; (considered 5% annual discount rate). Incremental Cost-Effectiveness Ratio (ICER) was calculated with treatment costs and life-years gained (LYG) offset based on incremental survival rate of compared therapies of Paricalcitol were lower. Based on the present analysis, T2DM places a significant financial burden on the health care system in Mexico, with cost of treating related complications being the main cost driver. Given the model focuses on diagnosed and treated T2DM patients, it is likely that costs of un diagnosed patients would be higher when undiagnosed and untreated patients are considered. Delaying the onset of complications could result in a reduction in costs, as well as benefits for the patient and health care system.
CANA doses and SITA significantly reduced systolic blood pressure (CANA 100mg: 53.6 ± 5.8 mmHg vs. 57.2 ± 5.2 mmHg, p < 0.05), but only significantly reduced body weight (CANA 100mg: 2.5%, 3% of SITA 100mg, and 2.9%) versus placebo. The objective of this study was to simulate the health outcomes and associated costs attributable to using CANA versus SITA in Mexico. METHODS: Forty-year outcomes over 100 years in CANA 300mg versus SITA to MET were simulated using ECHO (Economic and Health Outcomes)-T2DM, a validated micro-simulation model. Treatment effects and patient characteristics were sourced from the trial. Simulated treatment was intensified when HbA1c exceeded 7.5% by adding basal insulin, and subsequently prandial insulin. Disabilities associated with micro- and macro-vascular events were obtained from the literature and costs were adapted to the Mexican setting. RESULTS: Using CANA 300mg versus SITA 100mg to protect from reducing relative risks for key events (e.g., myocardial infarction 10.2%, congestive heart failure 6.6%, macroalbuminuria 6.6%, microalbuminuria 6.2%), improve QALYs (0.046), and result in lower costs per patient ($1927/MON). Simulated outcomes from 2010-2029 in Mexico. The CE analysis (incremental costs vs. incremental outcomes) was used to determine states of reductions in relative risks, QALY gains and associated costs differences were smaller. CONCLUSIONS: These simulations suggest that using CANA versus SITA as an add-on to MET could result in improved outcomes and reduced costs in Mexico.

PDB13
ECONOMIC EVALUATION OF INSULIN LIsPRO MIX 25 WITH GLARGINE IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS PATIENTS IN THE MEXICAN PUBLIC HEALTH CARE SYSTEM IN MEXICO
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OBJECTIVES: Compare expected costs and health-outcomes in patients with Diabetes Mellitus Type 2 (DMT2) in the Public Sector in Mexico treated with glargine (LG) or lispro insulin in mix 25 (LISPRO). Methods: A two-year, parallel, double-blind, randomized controlled trial (RANDOM) was conducted in 600 patients with DMT2 aged 20-75 years treated with glargine or Lispro Mix 25 (LISPM) for 2 years. Clinical endpoints were the frequency and type of microvascular and macrovascular complications and all-cause mortality. Results: Results showed non-inferiority of glargine compared with Lispro Mix 25. Costs were derived from the transparency portal of the Mexican Social Security Institute. Healthcare services utilization from hypoglycemic episodes was calculated according to international published literature. Sensitivity analyses were performed using a WTP threshold of $60,771,600COP [3x GDP] and can be cost-effective.

PDB15
SHORT-TERM AND LONG-TERM COST-EFFECTIVENESS OF SWITCHING THERAPY FROM NPH INSULIN TO INSULIN DEPOT IN PATIENTS WITH TYPE 2 DIABETES
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OBJECTIVES: To assess the cost-effectiveness (CE) of switching from NPH insulin to an oral glucose-lowering drugs (OGLDs) to insulin depot in people with type 2 diabetes (T2DM) in countries in different economic circumstances based on observational data gathered in routine clinical practice. METHODS: The A-chiève study assessed safety for outcomes over 24 weeks in 66,726 people with T2DM starting insulin analog therapy. Most people (96%) stated better glycemic control as reason to switching with, with 31% also stating hypoglycemia problems as a full-energy management. The CE analysis included people switching to detemir in South Korea (n=90) and in seven Arab Gulf countries (n=124). Data were collected on clinical effectiveness and adverse events, and health-related quality of life using the EQ-5D questionnaire. CE analyses used the ICS CORE diabetes model with 1 and 30 year time horizons, with South Korea and Saudi Arabia country-specific costs for complications and therapies and background mortality rates. CE was defined by comparing outcomes at study-end with outcomes at pre-study. Incremental cost-effectiveness ratios (ICERs) are expressed as cost per QALY in local currencies, USD and in fractions of local GDP per capita. CE was defined using the WHO definition of <$3 times per GDP per capita. RESULTS: 1-year ICERs were: South Korea (KRW 3,316,798; USD 2,980; GDP 0.13), and Saudi Arabia (SAR 27,221; USD 7,258, GDP 0.36). 30-year ICERs were: South Korea (KRW 872,589; USD 805; GDP 0.04), and Saudi Arabia (SAR 6,349, USD 1,693; GDP 0.08). Sensitivity analyses covered cost of self-monitoring, deterioration of glucose control with time, and ability to be cost-effective. Data from Switching from NPH+OGLDs to detemir in people with T2DM as performed in the A-chiève study was found to be cost-effective in both country settings in 1 and 30 year time horizons.

PDB16
SHORT AND LONG-TERM COST-EFFECTIVENESS OF SWITCHING THERAPY FROM INSULIN GLARGINE TO INSULIN DEPOT IN PATIENTS WITH TYPE 2 DIABETES
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OBJECTIVES: To assess the cost-effectiveness (CE) of switching from insulin glargine ± oral glucose-lowering drugs (OGLDs) to insulin depot ± OGLDs in people with type 2 diabetes (T2DM) in countries with different economic settings at 1 year and 30 years. METHODS: A hypothetical cohort of insulin-naïve patients with T2DM, aged 30–80, years, with A1C = 7.0% taking antihyperglycemic drugs was included. CE analyses included: 1) Percentage of patients with A1C < 7.0% at levels at 24 weeks, 2) frequency and type of micro and macrovascular complications (MMVC) and 3) hypoglycemic events per 1000 patients considering one-year timeframe. Costs were evaluated: 1) acquisition costs, 2) cost of hospitalization and outpatient care, 3) microvascular and macrovascular complications (MMVC) and 4) insulin costs. The switch was found to be less costly and have better outcomes in South Korea after 30 years and in Saudi Arabia at both time horizons. 1-year ICERs were: South Korea (KRW 3,316,798; USD 2,980; GDP 0.13), and Saudi Arabia (SAR 27,221; USD 7,258, GDP 0.36). 30-year ICERs were: South Korea (KRW 872,589; USD 805; GDP 0.04), and Saudi Arabia (SAR 6,349, USD 1,693; GDP 0.08). Sensitivity analyses covered cost of self-monitoring, deterioration of glucose control with time, and ability to be cost-effective. Data from Switching from NPH+OGLDs to detemir in people with T2DM as performed in the A-chiève study was found to be cost-effective in both country settings in 1 and 30 year time horizons.

PDB17
HEALTH ECONOMIC BENEFITS OF SENSOR AUGMENTED INSULIN PUMP THERAPY IN COLOMBIA
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OBJECTIVES: To estimate the health economic impact of Sensor-Augmented Insulin Pump (SAP) Therapy among Insulin-Dependent Diabetes Mellitus (IDDM) patients in Colombia. METHODS: The Core Diabetes Model (CDM) is highly validated, computer simulation model to determine the long-term health outcomes and economic consequences of diabetes interventions. A recent real life clinical study in Colombia evaluating 217 IDDM patients (average baseline HbA1c of 8.9% with mean age 34 years, and average diabetes duration of 14 years) who initiated SAP therapy. The CDM was applied to simulate an insulin-naïve patient and can be used to derive QALYs and associated costs differences were smaller. CONCLUSIONS: These simulations suggest that using CANA versus SITA as an add-on to MET could result in improved outcomes and reduced costs in Mexico.