included the cost of drugs, needles, hypoglycaemia and serious adverse events. The prices of drugs and needles were accounted by Chinese market retail price. The costs of hypoglycaemia, serious adverse events and weight loss were obtained from published data. All costs were adjusted to 2012 Chinese value based on China Consumer Price Index. Results were calculated as the difference of total expenditures of Liraglutide versus Insulin Glargine divided by the difference of patients achieving target. One-way sensitivity analyses were performed. **RESULTS:** The total cohort cost was CNY 1,658,112 (Liraglutide 1.8mg), 1,101,812 (Liraglutide 1.2mg), and 881,326 (Insulin Glargine). Number of patients successfully achieving the composite endpoint was 40 (Liraglutide 1.8mg), 32 (Liraglutide 1.2mg), and 15 (Insulin Glargine).Thus incremental cost per successfully treated patient was CNY 12,970 and CNY 31,071 for Liraglutide 1.2mg and 1.8mg versus Insulin Glargine respectively. Sensitivity analyses of the safety parameters suggested results were robust. **CONCLUSIONS:** Liraglutide was a cost-effective treatment approach versus Insulin Glargine for treating T2DM in a Chinese setting. The incremental costs were less than CNY 37,784 of estimated China GDP per capita in 2012.

PDB41

A MARKOV MODEL TO ASSESS THE INCREMENTAL COST EFFECTIVENESS RATIO FOR OPTIMAL STATIN UTILIZATION AS COMPARED WITH CURRENT USE: AN ANALYSIS OF MEDICAID BENEFICIARIES HAVING TYPE-2 DIABETES

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OBJECTIVES: To determine the prevalence of HMG-CoA reductase inhibitor medication use (i.e. "statin" drugs), assessing both prescribing rates and patent adherence to therapy, among a population of older Medicaid beneficiaries having type 2 diabetes in Rhode Island. Current prescribing and adherence rates were contrasted with an optimal use scenario using a Markov model, considering cost and benefit as measured in terms of predicted reductions in the incidence of fatal and non-fatal ischemic stroke. **METHODS:** We simulated expanded statin utilization among Rhode Island Medicaid beneficiaries age 65 or older having type 2 diabetes, evaluating the cost-effectiveness of increased utilization of statin medications. The benefit of statin use was focused on decreased stroke risk. Transition probabilities were derived from risk estimates generated for stroke, calculated from the General Practice Research Database across stratified gender and age groups in a cohort of 24,835 people with type 2 diabetes. Cost-effectiveness analysis was used to project costs and benefits of increased levels of statin utilization contrasted with current levels of statin utilization. **RESULTS:** Premised upon the population's (N = 4,217) actual utilization of statin medications, predicted outcomes over a 5-year period included 338.53 acute stroke events; 46.69 fatal stroke events; 1,506.17 deaths from other causes, with a total 5-year cost of drug therapy estimated to be $265,832. Based upon the optimal statin use scenario, predicted outcomes included 272.87 acute stroke events; 37.49 fatal stroke events; and 1,508.20 deaths from other causes, with a 5-year cost of drug therapy estimated to be $724,871. The resulting cost per stroke avoided was $6,991, while the cost per fatal stroke avoided was $49,858. **CONCLUSIONS:** From the perspective of the Medicaid payer, improving statin drug utilization in this population of older Medicaid-enrolled patients having type 2 diabetes is a cost-effective intervention for preventing ischemic stroke.

PDB42

EVALUATING SHORT-TERM COST-EFFECTIVENESS OF LIRAGLUTIDE VERSUS ORAL ANTIDIABETIC DRUGS IN PATIENTS WITH TYPE 2 DIABETES IN A CHINESE SETTING

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OBJECTIVES: To evaluate the cost-effectiveness of Liraglutide 1.2mg once daily versus oral antidiabetic drugs (OAD) in patients with type 2 diabetes (T2DM) achieving a composite endpoint of HbA1c<7.0%, no weight gain, and no hypoglycaemia at week 26 in a Chinese setting. **METHODS:** This short-term cost-effectiveness study compared Liraglutide with Rosiglitazone, Glimepiride and Sitagliptin respectively. Effectiveness data of patients with T2DM achieving the composite endpoint of HbA1c<7.0%, no weight gain, and no hypoglycaemia at week 26 were derived from a meta-analysis (Zinman et al. 2012). Safety data were obtained from randomized, controlled, phase 3 trials including Liraglutide Effect and Action in Diabetes (LEAD) 1, LEAD2 and 1860 trial. Medical costs included the cost of drugs, needles, hypoglycaemia and serious adverse events. The prices of drugs and needles were accounted by the market retail price published by National Development and Reform Commission. The costs of hypoglycaemia, serious adverse event and weight loss were obtained from published data. All costs were adjusted to 2012 Chinese value based on China Consumer Price Index. Results were calculated as the difference of total expenditures of liraglutide versus comparators divided by the different number of patients achieving the target. One way sensitivity analysis was performed. **RESULTS:** Within 26 weeks, comparing with Rosiglitazone, Glimepiride and Sitagliptin, Liraglutide 1.2mg made 26, 24 and 21 additional patients achieve the composite endpoint among every 100 patients respectively. The incremental cost per successfully treated patient with Liraglutide 1.2mg was CNY 20,145, CNY 26,899, and CNY 33,561 versus Glimepiride, Rosiglitazone, and Sitagliptin respectively. Sensitivity analyses demonstrated robustness of the results. **CONCLUSIONS:** This analysis demonstrated that Liraglutide was cost-effective compared to Glimepiride, Rosiglitazone, and Sitagliptin in a Chinese setting. The incremental costs were less than CNY 37,784 of estimated China GDP per capita in 2012.

PDB43

DETECTION OF TYPE-2 DIABETES IN YOUNG ADOLESCENTS

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OBJECTIVES: According to World Health Organisation, type-2 diabetes has recently escalated in all age groups and is now being identified in younger and younger age groups, including adolescents and children, especially in high-risk population. This underscores the need for mass awareness and screening programmes to detect diabetes at an early stage and early age cost effectively. For this purpose we have planned to use a simplified Indian Diabetes Risk Score [IDRS] for prediction of diabetes in young adolescents of Bharati Vidyapeeth Deemed University Medical College. **METHODS:** A total of 261 students of said Medical College will be screened using IDRS which includes age, family history of diabetes, exercise status and Waist circumference. After scoring them they will be categorised into mild, moderate and high risk group**.** In students who are having score more than 50, Random Capillary Blood Glucose (RCBG) were assessed with the help of glucometer. **RESULTS:** We have assessed 261 students till now. It was observed that 5% ,55% & 38% students in high, Moderate & Low risk group respectively for developing type 2 D.M. Mean abdominal obesity in high risk students was 101.95± 5.76 as compared to 79.17 ± 11.08 in moderate and low risk students(p<0.0001). Family history of diabetes in either or both parents was present in 25% students. 63% students were having sedentary lifestyle. Mean RCBG in students having score more than 50 was 97.33 ±9.68 mg/dl. Also, 3 students were having RCBG >103mg/dl. **CONCLUSIONS:** This underscores the need for further investigations. IDRS is the simplest way to screen large population. To prevent and to postpone the risk of type 2 diabetes mellitus, health education programme, exercise and diet planning can be recommended for these students.Thus this mayprove as a cost effective solution of detection of risk of type-2 diabetes mellitus.

PDB44

COST-EFFECTIVENESS ANALYSIS OF USING HYPOGLYCEMIC AGENTS (LINAGLIPTIN, SAXAGLIPTIN, SITAGLIPTIN, VILDAGLIPTIN, GLIMEPIRIDE AND GLIBENCLAMIDE) WITH METFORMIN IN DIABETES IN COLOMBIA

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OBJECTIVES: To Analyze the cost-effectiveness of using oral hypoglycemic agents (linagliptin, saxagliptin, sitagliptin, vildagliptin, glimepiride and glibenclamide) each associated with metformin, to control type-2 diabetes mellitus in patients with inadequate glycemic control, from a third-party's payer perspective. **METHODS:** A Monte Carlo-type Markov model was used to simulate disease natural history. The outcomes of interest were fatal infarct, acute myocardial infarction, stroke, nephropathy, moderate or severe hypoglycemia and changing of treatment, expressed in years of life (LY). Drug costs were taken from market average at prices for 2012 expressed in Colombian pesos. Direct medical costs were taken from insurers and individual health benefit records (SISMED). A discount rate of 5% was applied both to cost and outcomes. **RESULTS:** As a main outcome the measures of life years (LY) are nearly similar for each combined treatment. However linagliptin is barely a most effective treatment with 13.71 life years discounted, followed by sitagliptin and vildagliptin with 13.70 and 13.60 life years discounted respectively. Similarly, linagliptin is the least expensive (COP$69,396,763 discounted annually) while saxagliptin and vildagliptin have a cost of COP$71,941,693 and COP$71,713,900 discounted, respectively. It was found that linagliptin, vildagliptin and sitagliptin are nearly similar with respect to life years (LY) and each one is placed below the efficient frontier. Among the oral hypoglycemic agents analyzed, only three (linagliptin, vildagliptin and sitagliptin) are cost-effectives, being linagliptin the most. Glibenclamide is the only technology included in the Colombian health-care benefits plan and is the least effective and the most expensive one. **CONCLUSIONS:** Linagliptin, sitagliptin and vildagliptin each one added to metformin is nearly similar with respect to life years (LY) and to cost-effectives. Linagliptin appears to be an advisable option due to its lower cost and its fewer macro and micro vascular events, for diabetic patients with inadequate glycemic control in Colombia.

PDB45

COST-EFFECTIVENESS OF THERAPY CONVERSION FROM HUMAN SOLUBLE INSULIN TO INSULIN ASPART IN PATIENTS WITH TYPE-2 DIABETES IN A CHINESE SETTING

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OBJECTIVES: To evaluate the long-term cost-effectiveness of switching from human soluble insulin (HI) to insulin aspart (IAsp) in patients with type 2 diabetes mellitus (T2DM) in a Chinese setting. **METHODS:** A published and validated computer simulation model of diabetes (CORE Diabetes Model) was used to project long-term (30 years) life expectancy, quality-adjusted life years (QALY) and direct medical costs. Baseline cohort characteristics and treatment effects were based on Asian subgroup (n=154, including patients from China, Bangladesh, India, Pakistan, Indonesia, South Korea, Malaysia, Philippines, Singapore and Taiwan) in A1chieve study which is a prospective, multi-center, open-label, non-interventional, 24-week observational study. Treatment costs were derived from drug retail prices in Chinese market. The diabetes management and complication costs were obtained from Chinese published data. Projections were made from a societal perspective and an annual