procedures and clinical outcomes between the two groups were analyzed using chi square and one-way *t*-tests. Costs included therapeutic management, hospitalization, and amputation. Outcomes included the numbers of amputations and deaths, and length of stay. The analysis was performed from the Singapore hospital perspective, using 2008 Singapore dollars. **RESULTS:** The LEAP group had a lower amputation rate (29% vs. 76%, $P < 0.001$), lower death rate (0.4% vs. 13.2%, $P < 0.001$) and fewer in-hospital days (17.8 days vs. 23.16 days, $P = 0.048$). Furthermore, implementation of the LEAP strategy generated cost savings of 2566 Singapore dollars per patient compared with the pre-LEAP strategy. The results were sensitive to amputation rates, cost per amputation, and cost per bed day. However, the LEAP is cost saving across all plausible variations in parameters (95% confidence interval limits for the reduction in amputation rates, 25% variation in costs). **CONCLUSIONS:** Use of non-randomized study data and a retrospective comparator require the results of this study to be interpreted with caution. However, the results suggest the LEAP strategy dominates standard practice for the management of patients with diabetes and CLI being both cost saving and more effective.

PDB11

CLINICAL AND COST-EFFECTIVENESS OF BIPHASIC INSULIN ASPART 30 ONCE OR TWICE DAILY VERSUS INSULIN GLARGINE IN TYPE 2 DIABETES MELLITUS: A MODELING ANALYSIS IN THE CHINESE SETTING

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OBJECTIVES: The OnceMix and INITIATE studies have indicated that biphasic insulin aspart 30 (BIAsp 30) is more effective than insulin glargine (IGlarg) in terms of reductions in glycohemoglobin in type 2 diabetes patients requiring insulin initiation. Our aim was to estimate the cost-effectiveness of BIAsp 30 versus IGlarg in the Chinese setting. **METHODS:** The previously published IMS Core Diabetes Model was used. The nephropathy, retinopathy and stroke sub-models were modified to incorporate available Chinese clinical data. Diabetes complication costs were derived from hospital surveys in Beijing and Chengdu. Simulated cohorts and insulin treatment effects were based on the OnceMix study for once-daily BIAsp 30 versus IGlarg and on the INITIATE study for twice-daily BIAsp 30 versus IGlarg. Life expectancy and direct medical costs were calculated. Projections were made over 30-year time horizons, with costs and life-years discounted at 3% annually. Extensive sensitivity analyses were performed, including adjustments to cardiovascular risk for Chinese ethnicity. **RESULTS:** Once-daily BIAsp 30 increased life expectancy by 0.04 years (12.37 vs. 12.33 years) and reduced direct medical costs by Chinese Yuan (CNY) 59,710 per patient (CNY 229,911 vs. CNY 289,621 per patient) compared to IGlarg in the OnceMix-based analysis. Twice-daily BIAsp 30 increased life expectancy by 0.08 years (12.99 vs. 12.91 years) and reduced direct medical costs by CNY 107,349 per patient (CNY 303,142 vs. CNY 410,491 per patient) compared to IGlarg in the INITIATE-based analysis. Improvements in life expectancy were driven by reduced incidences of most diabetes-related complications. Cost savings were attributable to lower insulin costs for BIAsp 30 compared to IGlarg in China. Lowering cardiovascular risk for Chinese ethnicity reduced the modeled clinical improvements for BIAsp 30 but increased treatment-related cost savings. **CONCLUSIONS:** BIAsp 30, either once- or twice-daily, improves life expectancy and is cost-saving compared to IGlarg in the Chinese setting.

PDB12

COST-EFFECTIVENESS ANALYSIS OF GLIMEPIRIDE OR PIOGLITAZONE IN COMBINATION WITH METFORMIN IN TYPE-II DIABETIC PATIENTS IN KOREA

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OBJECTIVES: Our objective was to compare the cost-effectiveness of glimepiride versus pioglitazone in combination with metformin in patients with type 2 diabetes. **METHODS:** The cost-effectiveness analysis (CEA) was performed by using Markov Cohort Process Mode with type 2 diabetic patients. Increases in life-years gained (LYG) and quality-adjusted life-years (QALYs) were measured as the main indicators of effectiveness. Direct medical cost includes drug cost, monitoring cost (medical-supplies expense, total medicine-preparation cost, medical treatment cost, examination cost), and nursing cost (charged). Direct nonmedical cost includes the money spent on transportation by patients and families and indirect cost includes the time cost by patients and families. **RESULTS:** The Cost-Effectiveness Analysis (CEA) results showed that the combination therapy of metformin and glimepiride incurs total cost of KRW 5,652,814 to gain 8.065 LYG and 6.524 QALY. The combination therapy of metformin and pioglitazone costs KRW 8,613,622 to gain respective 8.836 LYG and 7.159 QALY. Thus the incremental cost-effectiveness ratios (ICERs) between two combination therapies were estimated to be KRW 3,837,632/LYG and KRW 4,658,636/QALY. **CONCLUSIONS:** In terms of ICER values, KRW 3,837,632/LYG and KRW 4,658,636/QALY, there is no dominant alternative therefore the cost-effective alternative between two alternatives will be able to be selected depending on threshold in willingness to pay or ICER of South Korea.

PDB13

THE IMPACT OF BEING AT-RISK FOR DIABETES IN CHINA AND THE UNITED STATES

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OBJECTIVES: Because of the rising prevalence of diabetes, the objective of this study was to better understand the population of patients who are at high risk for developing diabetes, but not yet diagnosed. Specifically, this study examined the health outcomes between those at-risk for developing diabetes and controls. **METHODS:** This study utilized data from two large, cross-sectional, Internet-based survey databases, supplemented in China with centralized locations: the 2009 US and 2009 China National Health and Wellness Surveys (NHWS). Applying a previously-developed algorithm (Bang et al, 2009), patients in each country who were not diagnosed with diabetes were classified as having or not having a high risk for developing diabetes. High-risk patients were compared with controls on health-related quality of life (physical component summary (PCS) scores of the SF-12v2) and the number of emergency room (ER) visits, controlling for demographics (country, age, gender, ethnicity, income, education) and patient characteristics (BMI and Charlson comorbidity index). **RESULTS:** Of those not diagnosed with diabetes, 2.46% of patients (n = 310) in China and 16.64% of patients (n = 10778) in the United States were classified as high risk for diabetes. After controlling for demographics and patient characteristics, those at high risk for diabetes reported significantly lower levels of PCS (Adjusted Mean [M_{adj}] = 45.5 vs. 48.8, $P < 0.0001$). Although high-risk patients reported significantly more ER visits than controls in China ($M = 0.44$ vs. 0.40) they reported significantly less than controls in the United States ($M = 0.12$ vs. 0.17). These effects were significantly different between countries ($\chi^2[1] = 5.25$, $P = 0.022$). **CONCLUSIONS:** Although substantially more US patients were at high risk for developing diabetes relative to Chinese patients, the health outcome differences between those at high-risk and controls were more dramatic in China. Chinese patients at high-risk for diabetes reported significantly worse physical quality of life and more ER visits than controls.

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PDB14

USE OF 8-ITEM MORISKY MEDICATION ADHERENCE SCALE FOR THE ASSESSMENT OF MEDICATION ADHERENCE IN TYPE 2 DIABETES MELLITUS

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OBJECTIVES: To assess the patient's adherence to diabetic medications using 8-item Morisky medication adherence scale (MMAS) and to evaluate the association between patients' adherence and the diabetic control outcome. **METHODS:** A convenience sample of 223 type 2 diabetic outpatients was identified between May and September, 2009 from the Penang General Hospital, Penang, Malaysia. Patients who had taken oral antidiabetic medications with or without insulin were eligible for the research. Eight-item MMAS was used to assess medication adherence. Medical records were reviewed for Hemoglobin A1C (HbA1C) levels and other relevant clinical data. **RESULTS:** Based on the inclusion criteria, only 175 were included in the final analysis. Employing the recommended method of scoring, the mean ± SD of MMAS scores was 6.13 ± 1.72 in which 38% were low, 44% were medium and only 17% were in high adherence group. Significant differences in educational levels, HbA1c levels, number of medications per day, MMAS scores among the three groups ($P < 0.05$). No significant differences have been found in age, sex, BMI, race, employment and diabetic duration among the three groups of adherence ($P \geq 0.05$). MMAS scores correlates significantly with HbA1c (–0.431 $P < 0.01$). **CONCLUSIONS:** This study has shown that the short, easily administered 8-item MMAS is a useful tool for measuring medication adherence in diabetic patients. This study found that patients with lower score of MMAS had a higher HbA1c. The present study suggested that MMAS can be used for identifying type 2 diabetes patients with poor adherence to their medications.

PDB15

HEALTH STATUS, HEALTH-RELATED QUALITY OF LIFE AND TREATMENT SATISFACTION AMONG PATIENTS WITH DIABETES IN THAILAND

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OBJECTIVES: To assess health status, health-related quality of life (HRQoL), treatment satisfaction (TS) and patient characteristics associated with these outcomes among Thai patients with diabetes. **METHODS:** Randomly selected patients with Type 2 diabetes aged ≥18 years were recruited from Samut Sakhon Hospital in Thailand from December 2008 to February 2009 in this cross-sectional study. The Thai versions of the EuroQol 5-Dimensions (EQ-5D) and the Audit of Diabetes-Dependent Quality of Life (ADDQoL-19) Questionnaire were used to assess health status and HRQoL, respectively, while the Diabetes Treatment Satisfaction Questionnaire status version (DTSQs) was used to assess satisfaction with diabetes treatment. **RESULTS:** A total of 201 patients were recruited with the majority being female, aged ≥45 years, of primary education and required only oral antidiabetes therapy. Their mean ± SD