and needle. RESULTS: 5) 614 patients with T2DM were surveyed and 71.45% used SMBG. For people with T2DM, the treatment costs of glucometers were CNY 212.99; annual costs of test strips were CNY 825.55, estimated by multiplying average price (CNY 4.41) and frequency (3.60 per week); in total, SMBG cost CNY 1038.54 per person per year; 2) For insulin users, annual cost of insulin pens were CNY 386.34, estimated by average price (CNY 281.09) and frequency (3.41 per year); 3) 634.20, estimated by average price (CNY 3.14) and frequency (204.58 per average, average 17.05 times); in total, self-injection cost CNY 1030.54 per person per year; 3) 49.55%, or 1211 subjects used both insulin and SMBG. For this subgroup, annual costs of glucometers were CNY 199.05, annual costs of test strips were CNY 941.99, estimated by average price (CNY 4.41) and frequency (4.08 per week); in total was CNY 1141.04 per person per year. CONCLUSIONS: SMBG and self-injection caused considerable economic burden to patients in China, and more attention should be given to their out-of-pocket payment incurred by self-used devices and supplies.

PDB5

PREVALENCE, FREQUENCY AND COST OF SELF-MONITORING OF BLOOD GLUCOSE AND ITS INFLUENCING FACTORS FOR INSULIN-TREATED DIABETES PATIENTS IN CHINA

Li H1, Ruan Z2, Guan X.D.3, Guo Z.G.3, Han P.1, Sun F.1, Xu Z.1, Zheng Y.1, Sorensen S.4, Ruffolo A.5

1School of Pharmaceutical Sciences, Peking University, Beijing, China, 2Novo Nordisk (China) Pharmaceuticals Co., Ltd., Beijing, China, 3International Research Center of Medicinal Administration, Peking University, Wuhan, China

OBJECTIVES: To investigate the prevalence of and cost of insulin pen needles reuse, and explore the factors that associated with needles reuse for insulin-treated diabetes patients in China. METHODS: A questionnaire-based survey was conducted in 7 centres in China from June to September of 2012. Type 1 and type 2 diabetes patients treated with insulin were included in the study. The data were analysed by descriptive analysis, Spearman correlation analysis, K-W and M-W U test using SPSS 19.0. RESULTS: 602 eligible respondents (30 type 1 and 562 type 2 diabetes patients) were included. One single needle was used 10.57 times base on 5% trimmed mean (8 times in median). 89.2% of patients reuse needles and 60.5% used more than one needle. Among type1 and type 2 diabetes, needles use frequencies were 1.05 times/day, 84.8% and 0.59 times/day, respectively. Taking global recommended SMBG frequency into account, only 18.76% of type 2 diabetes patients conducted SMBG was not conducted enough in insulin-treated diabetes patients in China. Economic burden of test trips was one of the main barriers to diabetes patients in China. Economic burden was the main reason of needles reuse. Other influencing factors of needles reuse included age, diabetes-related complications, value of fasting blood glucose, insulin injections times and dose, and was negative associated with income, with P-value <0.05. CONCLUSIONS: Needles reuse for insulin injection was a common phenomenon in insulin-treated diabetes patients in China. Economic burden was a significant factor influencing needles reuse. For insulin users, annual cost of insulin pens were CNY 396.34, estimated by average price (CNY 281.09) and frequency (3.41 per year); in total, SMBG cost CNY 1038.54 per person per year; 2) Medical cost due to multiple complications was calculated, such as CNY 237.0 CNY for needles, CNY 6,272.0 for insulin pens, CNY 10,861 for SMBG, CNY 6,023 per QALY for dapagliflozin in combination with metformin in patients with T2DM inadequately controlled on metformin alone in Colombia. METHODS: A discrete event simulation model (Cardiff diabetes model) based on subjects with T2DM in DEPIGE was used. Sensitivity analyses were performed. The economic and health treatment consequences in people with T2DM. Epidemiologic and clinical efficacy parameters were obtained from the literature. The cost of medication was obtained from government healthcare price database (GPHR), and cost of macro- and microvascular events was based on the Department of Health and Welfare. RESULTS: The clinical burden of dapagliflozin + MET group over 20 years was higher than that of the SU group but with a lower incremental cost-effectiveness ratio (ICER) compared to SU (S $6,023 per QALY gained. Using WHO’s guidelines for economic evaluation, the additional cost-effectiveness of dapagliflozin versus SU was $6,023 per QALY gained. This study demonstrated that dapagliflozin in combination with metformin would be a cost-effective treatment option for patients who are inadequately controlled with metformin monotherapy in Colombia.

PDB7

COST-EFFECTIVENESS ANALYSIS OF BIPASSIC INSULIN ASPART VERSUS INSULIN GLARGINE IN PEOPLE WITH TYPE 2 DIABETES IN CHINA

Zheng Y.1, Ruan Z.2, Guan X.D.3, Guo Z.G.3, Xu Z.1, Han P.1, Sun F.1

1Diabetes Center & Endocrinology Department, 10th Hospital of PLA, Beijing, China, 2Shengjing Hospital of China Medical University, Shenyang, China, 3City East Hospital, Shanghai, China, 4Pharmaceuticals Co., Ltd., Beijing, China, 5Bristol-Myers Squibb Company, Bogota, Colombia

OBJECTIVES: To evaluate the long-term cost-effectiveness of once daily biphasic insulin aspart 30 (BIAsp 30) versus insulin glargine (Iglarg) treating people with type 2 diabetes mellitus (T2DM) based on social perspective in China. METHODS: The clinical burden of diabetes-related complications was calculated to manage disease progression and determine the total direct medical cost, life years (LYs) and quality-adjusted life years (QALYs) over 30 years. Simulated cohorts and treatment effects were based on the Chinese subgroup (n=422) in the MaxStudy (identifier in ClinicalTrials.gov: NCT01123980) which was an open-label, randomized, two-arm and multicentre trial among insulin-naive people with T2DM. Treatment costs were based on insulin doses in the institutional and retail market prices in China. Management and complication costs were retrieved from Chinese published data in 2011 and adjusted to the price level of 2012 with consumer price index. An annual discount rate of 3% was used for both costs and health outcomes. One-way sensitivity analyses were performed. RESULTS: Treatment with BIAsp 30 was associated with a LY gain of 0.09 (13.66 vs. 13.57) and QALY gain of 0.08 (9.72 vs. 9.64) compared to Iglarg. 30 years. In terms of total average cost per patient, BIAsp 30 was less costly than Iglarg (CNY 46,441, CNY 265,166 vs. 311,607) which was mainly induced by lower treatment cost (CNY 4,967 vs. CNY 203,800) and complication cost (CNY -3404, CNY 104,303 vs. 107,707). Sensitivity analyses demonstrated robustness of the results. CONCLUSIONS: For people with T2DM insulin-naive treated on GIlarg, BIAsp 30 was projected to be associated with improved life expectancy and reduced direct medical cost compared to Iglarg. BIAsp 30 represented a dominant treatment option compared to Iglarg for people with T2DM failing to achieve adequate control with Iglarg in China.