

that can guarantee good diabetes management, but its control over BMI in growing children is still unclear. The insulin pumps have too many advantages: reduction in insulin requirements, reduced variability of insulin absorption, decreased hypoglycemia incidents, avoided pain, improved quality of life.

PDB135

PATIENT PREFERENCES IN TREATMENT OF DIABETES MELLITUS: A SYSTEMATIC REVIEW OF STATED PREFERENCE SURVEYS

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OBJECTIVES: Diabetes Mellitus is one of the most expensive common diseases. Because of the great socio-economic importance of this indication, it seems necessary to consider the expectations and needs of all patients with regard to treatment characteristics. To evaluate patient preferences stated-preference methods are increasingly used. The aim was to analyze and compare the available evidence from patient preference studies regarding the treatment characteristics and to display which target criteria are most important from the patients view. **METHODS:** A literature review in PubMed was conducted to identify stated preference studies in the indication of diabetes and show which properties of a treatment are relevant to the patient's benefit. By means of level difference calculation and a subsequent normalization uniform weights for the attributes of the studies were determined. Based on a final ranking the key criteria according to their value proposition from the perspective of affected populations are demonstrated. **RESULTS:** N=13 studies could be included in the analysis. By calculating the level difference and performing a normalization it was possible to obtain a uniform representation of all attributes of each study. The analysis includes the presentation and analysis of DCE-studies which have illustrated the determined coefficients. The studies show that blood sugar control, side effects (such as hypoglycemia, nausea/stomach discomfort, weight changes), long-term complications (especially cardiovascular disease) and mode of administration represent the most patient-relevant outcomes in diabetes therapy. Blood glucose control achieved the highest ranking within the relative importance score. **CONCLUSIONS:** Based on the findings of this systematic review the evidence of patient preferences in diabetes treatment is synthesized. The results show the relative importance based on a derived ranking score of the used patient-relevant endpoints. The determined ranking allows the comparison of the results of the identified preference studies and might solve the problem of scale heterogeneity.

PDB136

PSYCHOMETRIC EVALUATION OF THE HYPOGLYCAEMIA PERSPECTIVES QUESTIONNAIRE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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OBJECTIVES: The Hypoglycaemia Perspectives Questionnaire (HPQ) is a patient-reported outcomes (PRO) instrument assessing diabetic patients' experience and perceptions of hypoglycaemia. The aim of this study is to evaluate the factor structure and psychometric characteristics of the HPQ in type 2 diabetic patients (T2DM). **METHODS:** HPQ was administered to adults with T2DM in a clinical sample from Cyprus and a community sample in the US from 2011 US National Health and Wellness Survey. Demographic and clinical data were collected. Participants completed the Audit of Diabetes Dependent Quality of Life (ADDQoL-19), treatment satisfaction items, and EuroQoL-5 Dimensions (EQ-5D) (Cyprus only). HPQ items assess hypoglycaemia attitudes and behaviours on an 11-point numeric rating scale (NRS). Item performance and factor structure were examined and measurement properties (reliability, construct validity, known-groups validity) evaluated. **RESULTS:** Cyprus (n=500) and US (n=1,257) T2DM samples were of similar age (Cyprus 61.0±10 years, US 59.9±11 years). Cyprus had more males (67.4% vs. 54.2%) and fewer obese subjects (BMI ≥30) 45.6% vs. 67.8% than the US. More US subjects reported hypoglycaemia events in the past seven days (27.7% vs. 16.6% with ≥1 event). Prescription oral diabetes medications were used by 90.3% of Cyprus participants and 83.6% of US participants, and insulin by 32.9% and 25.3%, respectively. Analyses supported three HPQ domains: Symptom Concern (six items), Compensatory Behavior (five items), and Worry (five items). Internal consistency was high for all three domains (all ≥0.75), supporting reliability. Convergent validity was supported by moderate correlations between HPQ domain scores and ADDQoL-19 total score. Patients with recent hypoglycaemia events had significantly higher HPQ scores supporting known-group validity. **CONCLUSIONS:** HPQ is a valid and reliable measure capturing the experience and impact of hypoglycaemia and can be useful in clinical trial and community-based settings.

PDB137

THE PREVALENCE OF HYPOGLYCEMIA AND ITS IMPACT ON THE QUALITY OF LIFE OF TYPE 2 DIABETES MELLITUS PATIENTS IN GREECE (THE HYPO STUDY)

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Hypoglycemia (Hypo) is a common adverse effect of type 2 diabetes (T2D) therapy. Hypo has a negative impact on health care resources and quality of life (QoL) and can affect compliance and T2D control. **OBJECTIVES:** To estimate the impact of Hypo on the QoL as well as its prevalence on T2D patients in Greece. **METHODS:** A cross-sectional epidemiological study was conducted in 6631 patients with T2DM. Hypo events with different treatment regimens, T2D control rates and QoL were assessed. Hypo episodes were defined as laboratory-confirmed (<70 mg/dl) symptomatic events. QoL was measured using the patient-administered ADDQoL-19

questionnaire. Diabetes control was defined as Hb1Ac ≤7%. **RESULTS:** The majority of the sample were male (55%) and overweight (59% had BMI 25-29.9). 20.4% of T2DM patients had a history of laboratory-confirmed hypoglycemia. In total, 59% had HbA1c >7%. The mean age was 60 and the mean T2D duration was 10 years. The mean QoL score of the total sample was -3.1± 1.9, the mean score of non-hypoglycemic patients was -3.05 ± 2.0 while the respective score of hypoglycemic patients was -3.26 ± 1.8, (p<0.005). Similar results were observed in the group of controlled patients and uncontrolled patients, who scored -2.73±1.7 and -3.33±1.9, respectively (p<0.005). Comparable results were identified in the majority of the ADDQoL-19 instruments' dimensions. According to the logistic regression analysis the majority of the ADDQoL-19 dimensions were significantly affected by hypoglycemia, as well as by high levels of HbA1c. **CONCLUSIONS:** The study confirmed that the QoL of Greek T2D patients is negatively affected by hypoglycemic events and the level of the disease control. In T2D, treatment should attain good glycaemic control without debilitating hypoglycemic episodes, which compromise patients' QoL.

PDB138

THE IMPACT OF DAYTIME AND NOCTURNAL NON-SEVERE HYPOGLYCAEMIC EVENTS ON PEOPLE WITH DIABETES IN TURKEY

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OBJECTIVES: Two surveys were conducted to assess the impact of nocturnal and daytime hypoglycaemia on the individual and on the Turkish economy. **METHODS:** People with diabetes who had experienced a non-severe hypoglycaemic event in the 4 weeks prior to the survey were eligible for inclusion. The surveys were conducted face to face; all information, including hypoglycaemic events, was self-reported. **RESULTS:** In the Turkish cohort, 95 people responded (50 for the nocturnal survey [N]; 55 for the daytime survey [D]). Mean age was 49 years/48 years (N/D), mean weight was 76.9 kg/75.2 kg (N/D), 40%/31% (N/D) of respondents were male, and 64%/80% (N/D) had type 2 diabetes. Among respondents with type 2 diabetes, 63%/48% (N/D) received insulin ± OADs and 63%/66% (N/D) received OADs ± insulin. Non-severe hypoglycaemic episodes were experienced at least once/week by 20%/35% (N/D) and at least once/month by 58%/73% (N/D) of respondents. After the non-severe nocturnal (N) /daytime (D) hypoglycaemic event, 16% and 9% (N/D) of respondents decreased their insulin dose and 16% and 20%, respectively, contacted a health care professional. On average, respondents used 1.5 or 1.6 (N/D) extra blood glucose tests the following week, and 34%/26% (N/D) of those surveyed reported a high level of fear of a hypoglycaemic event. Of respondents who worked for pay (n=22/17), 59%/77% (N/D) reported a high/medium impact on work productivity following a hypoglycaemic event. Mean time to return to sleep following a nocturnal event was 60 minutes; 28% reported that the event had a high impact on sleep, and 54% had difficulty focusing at work the next day. **CONCLUSIONS:** In Turkey, nocturnal and daytime non-severe hypoglycaemic events impact quality of life, utilisation of health care resources and productivity in people with diabetes.

PDB139

HEALTH RELATED QUALITY OF LIFE OUTCOMES (HRQL) AND RESOURCE USE ASSOCIATED WITH TYPE 2 DIABETES PATIENTS TAKING STEPS TO LOSE WEIGHT IN 5 EUROPEAN COUNTRIES

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OBJECTIVES: Weight control is a cornerstone of type 2 diabetes (T2DM) management, but the impact of losing small to moderate amounts of weight relative to gaining weight on patient-reported outcomes and resource use among T2DM patients is not widely reported. This study was conducted to describe the association of weight change in T2DM patients taking steps to lose weight (TSLW) with HRQL, work productivity and resource use in European T2DM patients. **METHODS:** Data came from the 2013 EU National Health and Wellness Survey, representative of adults in France, Germany, Italy, Spain and the United Kingdom. Respondents TSLW who lost ≤5kg were compared to respondents who gained weight. Outcome measures included SF-36v2, Work Productivity & Activity Impairment Questionnaire, and 6-month self-reported health care use. Comparisons used pairwise t-tests and chi-square tests for continuous and categorical variables, respectively. **RESULTS:** Of 1,985 respondents taking steps to lose weight, 61% were male, 37% were employed with mean BMI 32.3 kg/m². Relative to respondents who gained weight (n=354), respondents who lost ≤5kg (n=560) had higher scores on mental component summary by 3.9 points (p<0.05), higher physical component summary by 2.3 points (p<0.05), and SF-6D health utility by 0.05 points (p<0.05). This group reported lower work and activity impairment as well as lower health care resource utilisation relative to those who gained weight, with lower mean presenteeism (22% vs. 28%, p<0.05), activity impairment (34% vs. 44%, p<0.05), health care provider visits (7.8 vs. 10.2 p<0.05), emergency room visits (0.2 vs. 0.6; p<0.05) and hospitalizations (0.2 vs. 0.4; p<0.05). **CONCLUSIONS:** Treatments which facilitate small to moderate weight loss may offer T2DM patients better HRQL and potentially offer savings to the health care system when compared to treatments which promote weight gain. Further research is required to explain this observation.

PDB140

RACIAL DISPARITIES IN TYPE 2 DIABETES HEALTH CARE UTILIZATION IN MEDICAID ADULTS WITH DEVELOPMENTAL DISABILITIES

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OBJECTIVES: Adults with developmental disabilities have higher prevalence of chronic disease conditions such as diabetes, obesity, high blood pressure, arthritis, CVD and chronic pain. They also have poor health care utilization and screened less for chronic disease conditions. The objective of this study was to examine the association of race, and medication adherence, and their interaction with health care utilization and health care costs in Medicaid enrollees with developmental disabilities (DD) and type