

CONCLUSION: The CareCard Diabetes was found to be an up-to-date standard for implementing a quality of care initiative in Switzerland. The internet offers possibilities to extend the value of this originally paper-based tool for improving quality of diabetes care.

PDB8

TYPE-2 DIABETES AND BODY MASS INDEX (BMI): WHAT CAN WE LEARN FROM A LONGITUDINAL DATABASE STUDY?

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OBJECTIVES: Type-2 diabetes increases the risk of cardiovascular and cerebrovascular complications. In general population, overweight/obesity are associated with high risk of related diseases. In a type-2 diabetes patient's population, we examine the relationship between BMI status and incidence of cardiovascular and cerebrovascular complications. **METHODS:** We used a cohort of type-2 diabetes patients over a 15-year period. Study patients were stratified in 4 BMI groups: 20–24.9 kg/m² (normal weight), 25–29.9 kg/m² (overweight), 30–34.9 kg/m² (obese) and over 35 kg/m² (very obese). Incidence of diseases was analyzed retrospectively ($p < 0.05$) in each BMI group relative to the “normal weight” group. **RESULTS:** Five thousand four hundred and thirty five type-2 diabetes patients were examined. Average age was 63.61 years and 44 % of the population was women. Number of patients per group were 1,060 normal weight, 2,072 overweight, 1,454 obese and 849 very obese. Average follow-up (734 days) and average duration of diabetes history (15 years) were comparable in each BMI group relative to normal weight group. Incidence of myocardial infarction are 1.13%, 4.05% ($p < 0.05$, Chi2), 2.48% ($p < 0.05$, Chi2) and 1.53% ($p > 0.05$, Chi2); incidence of coronarography are 0.57%, 1.40% ($p < 0.05$, Chi2), 1.65% ($p < 0.05$, Chi2) and 1.77% ($p < 0.05$, Chi2), respectively in normal weight, overweight, obese and very obese. PTCA and CABG are more frequent in obese group compare to normal weight. HbA1c is normalized (below 7%) in higher proportion of normal weight patients (21.89%) compare to obese (18.50%, $p < 0.05$, Chi2). Incidence of cerebrovascular events such as stroke or TIA are not statistically different according to BMI group. **CONCLUSION:** In this analysis, variables like follow-up and duration of diabetes history were homogeneously distributed among BMI groups. In this cohort of type-2 diabetes patients, we observed that cardiovascular events are more frequent in overweight/ obese compared to normal weight. Further research will need to confirm that a relevant weight reduction would have a clinical benefit in this high-risk patients population.

DIABETES—Quality of Life/Preference**PDB9**

DEVELOPMENT AND VALIDATION OF THE INSULIN TREATMENT SATISFACTION QUESTIONNAIRE (ITSQ)

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OBJECTIVES: Patient reported Treatment Satisfaction instruments can be used to assess degree of acceptability and effectiveness of a treatment. For diabetes, this assessment can be helpful for guiding treatment decisions about the most optimal insulin therapy regimens for a given patient. Unfortunately, there are no instruments identified in the literature that assess the full spectrum of satisfaction issues with insulin therapies. Therefore, we undertook the development and validation of the comprehensive Insulin Treatment Satisfaction Questionnaire (ITSQ). **METHOD:** An original item pool was developed using data collected from five focus groups with insulin users, current literature and consultation with behavioral diabetes researchers. The initial questionnaire was tested in 170 diabetes patients from 3 large clinical centers in different regions of the US who were currently using a variety of insulin regimens. A confirmatory psychometric study in 402 insulin users was subsequently conducted. **RESULTS:** Item and scale analysis with IRT and factor analysis resulted in the identification of six subscales: Ease/Convenience, Interference, Lifestyle, Hypoglycemia, Glycemic control, and Insulin Delivery System. Cronbach alpha reliability ranged from .79 to .92, and 2-week test-retest reliability ($n = 35$) ranged from 0.65 to 0.89. Convergent validity of the ITSQ was established in relation to several questionnaires, including the PAID, insulin self-efficacy and diabetes symptoms questionnaires. The ITSQ subscales discriminated significantly for A1c level, Type 1 vs. Type 2 diabetes, and global satisfaction. The confirmatory validation study confirmed the original six-factor structure and the discriminative validity. The final shortened ITSQ contains 25 items, which may be reported as a total score or as 6 subscale scores. **CONCLUSION:** The ITSQ is a comprehensive and psychometrically valid instrument covering six distinct dimensions of treatment satisfaction with insulin. It is applicable to type-1 and 2 diabetes patients and a wide range of insulin regimens.