Translation, adaptation and validation of the diabetes distress scale for Indonesian diabetic outpatients with various types of complications

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Published in:
Value in Health

DOI:
10.1016/j.jval.2016.08.205

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2016

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):

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EQ-SD during 2016. A visual analog scale (VAS) score and health index score were computed, and the difference was measured for non-participants (selected by propensity score matching). This study used linear regression models to determine the change in the EQ-SD score, controlling for age, gender, type 1, LDI, body mass index (BMI), duration, comorbidity, and severity. RESULTS: There is an insignificant increase in the EQ-SD index score for type 2 diabetes (β = 0.09, P = 0.59), compared with the non-P4P group after controlling for patient factors. The between-group difference in the EQ-SD VAS score is not significant after controlling for patient factors (β = -0.04, P > 0.50). CONCLUSIONS: There is no difference in health status and health-related quality of life among patients participating in the newly featured P4P program versus non-participants.

PDB30

ESTIMATING THE ECONOMIC BURDEN OF HYPOGLYCEMIA IN PATIENTS WITH TYPE 1 AND TYPE 2 DIABETES MELLITUS IN AUSTRIA

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OBJECTIVES: To assess health care costs and productivity losses associated with hypoglycemia in type 1 and type 2 diabetic patients per person and for Austria. METHODS: The target population comprised type 1 diabetics and type 2 diabetic patients in Austria and products related to control blood sugar and HbA1c Level. It is hypothesized that patients attributes: dosing frequency, blood sugar (HbA1c) change, weight change, type of diabetes (T1DM versus T2DM), and the willingness of patients to take medication represented by dulaglutide and lixisuglutide medication profiles. RESULTS: Final analytic samples consisted of 182 participants in Japan and 243 from the UK. In both studies, dosing frequency of diabetes medication and frequency of adsease were the 50% most important attributes, in rank order, with minor variation in the relative importance of each attribute across countries. Pre-study willingness to take injectable medication was significantly lower in Japan (1.7%) compared to the UK (37%) (p < 0.001). Post-DCE willingness to take medication represented by dulaglutide and lixisuglutide medication profiles also differed, with fewer Japanese participants ‘somewhat willing’ or ‘very willing’ (dulaglutide: 42.9%; lixisuglutide: 4.4%) compared to their UK counterparts (dulaglutide: 30.5%; lixisuglutide: 55.6%). Overall, the acceptability of RI for treatment characteristics of dulaglutide and lixisuglutide were similar across countries with dosing frequency ranked highest, followed by type of diabetes system. Patients from both countries were more willing to self-inject at the end of the study, compared to patients more willing than Japanese patients at both time points.

PDB33

ASSESSMENT OF KNOWLEDGE AND PRACTICE REGARDING FOOT CARE OF DIABETES MELLITUS PATIENT IN TERTIARY CARE HOSPITALS, QUETTA, PAKISTAN

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OBJECTIVES: This study aimed to assess the knowledge and practice of foot care in diabetic patients and to identify the determinants of adherence to foot care. METHODS: A cross-sectional study was conducted in two government hospitals and general population of diabetic patients from Quetta city, Pakistan. These groups were compared on SF-36 scores, including both resulting in 25 million for type 1 diabetes as for type 2 diabetes (€50 million vs. €204 million, 56.0%), with 323 (88.7%) were good. Poor or if score was <50% Descriptive and inferential statistics have been done by using SPSS version 20. RESULTS: Out of 400 questionnaires, 364 were returned (response rate 91%). Majority of respondents were between 46-55 years, 60.8% of respondents were married, 58.0% of respondents were employed. Conclusions: Majority of respondents were from urban locality 269 (73.9%). Majority of respondents (80.2%) were educated but majority (n=168, 46.2%) were having no job. A large number of respondents (n=262) had bad foot hygiene. Majority of patients had poor practice of DM foot care. Demographic characteristics, Level of education, Occupation and income (p < 0.001) had statistically significant association with knowledge and practice score. CONCLUSIONS: The result of study shows adequate knowledge and poor practice among diabetic patients regarding foot care, betterment of knowledge is necessary to enhance overall practice and to reduce diabetes foot complications.

PDB34

EFFECTIVENESS OF SELF-MONITORING OF BLOOD GLUCOSE (SMBG) IN REDUCING HBA1C OF DIABETES MELLITUS TYPE-2 PATIENTS IN JAKARTA, INDONESIA: PRELIMINARY FINDINGS

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OBJECTIVES: We did not find as much as US$93 billions due to diabetes between 2006-2015. The prevalence of DM patients was 6.9 million people in 2010 and projected to reach 11.9 million people in 2030 in Indonesia. The self-monitoring of blood glucose (SMBG) has been widely used to control blood sugar and Hba1C level. It is hypothesized that patients who monitor their blood sugar have higher probability of compliance with diets and treatments. Therefore, providing DM patients with blood glucose monitor is assumed to be able to contribute for better outcome of treatment. We conducted a quasi experiment study by providing Self-Monitoring of Blood Glucose (SMBG) for DM patients in Jakarta. The study aims to ascertain good control of diabetic patients which is measured by the level of reduction Hba1C. METHODS: This is a prospec- tive quasi experiment with 24-week observation after initial insulin therapy and glucometer distribution. The study population is 120 patients with the power of 80% beta and significant level of 5% alpha. The inclusion criteria is the patient is continuously insured of supply of insulin, and having Hba1C of 9% or above, and agree to participate in study for at least for 24 week-observation. RESULTS: Total sample of patients finishing 24-week observation until March 2016 was 42 patients. The remaining patients were still following the protocol until December 2016. The preliminary result of 42 patients shows that 99.2% of patients had decreased significantly in Hba1C level, while 4.8% had increased Hba1C, and 2.4% had no changes which is measured by the level of reduction Hba1C. METHODS: This is a prospec- tive quasi experiment with inpatient observation. Blood glucose (SMBG) program had significant impact to reduce Hba1C level and it is recommended to be provided by the National Health Insurance.

PDB36

TRANSLATION, ADAPTATION AND VALIDATION OF THE DIABETES DISTRESS SCALE FOR INDONESIAN DIABETIC OUTPATIENTS WITH VARIOUS TYPES OF COMPLICATIONS

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OBJECTIVES: To translate, adapt and validate the Diabetes Distress Scale (DDS) instrument for Indonesian type 2 diabetes mellitus (T2DM) outpatients with various types of complications. METHODS: Participants were recruited from four hospitals and two primary healthcare facilities. The procedure of the study included forward and backward translations, an adaptation testing with a small subset of participants, and a validity test. Factor analysis in maximum likelihood estimation and promax rotation was used to investigate the instrument structure. Internal consistency among the items was estimated using Cronbach’s alpha for each of the four constructs. The instrument was translated from English into Malay by (3) by four experts who have been working in the field of diabetes for more than 10 years. The items were translated into Indonesian and validated through a test-re-test procedure on 30 outpatients. RESULTS: The overall Cronbach’s alpha for the total DDS scale was 0.88. The internal consistency for the four domains ranged from 0.40 to 0.67. The factor analysis showed correlation among the four factors ranging from 0.40 to 0.67. The order in the factor analysis was the same as the original study. The internal consistency for the four factors was 0.78 from primary healthcare facilities. METHODS: Understanding of the construct validity of the instrument in future research and clinical trials is recommended for the Indonesian context.

PDB37 AN OBSERVATIONAL STUDY ON HELATH RELATED QUALITY OF LIFE IN DIABETES MELLITUS PATIENTS

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OBJECTIVES: The main objective of the present study focuses on evaluation of physical and mental health related quality of life in type 2 Diabetic Mellitus patients in representative sample population. METHODS: The study consisted of a representative population sample of 325 out-patients with diabetes mellitus. An exploratory factor analysis was run out for a period of one year at tertiary care hospital, Warangal. Data was obtained using different sources and patients were interviewed to identify health related quality of life (HRQOL) using 3 modified questionnaires “SF-36 WHO wellbeing questionnaire, Quality of life enjoyment and satisfaction questionnaire, Diabetes specific quality of life scale questionnaire”. These modified questionnaire includes domains like emotional wellbeing, functional wellbeing, physical wellbeing, social/family wellbeing, diabetic specific goals and satisfaction on blood glucose values, burdens and restrictions from dia betes and its treatment. RESULTS: In the present study, the HRQL is categorised as high, moderate and low. Overall patients are 325, among them 260 were adults and 65 were geriatrics further 152 were male, 173 were female. In reference with WHO data, 40% adults, 3% geriatricians participated in this study. 40% geriatrics shared moderate HRQOL and 23% adults, 57% geriatrics shared low HRQOL. Based on enjoyment and satisfaction scale 88% adults, 63% geriatrics shared high HRQOL. In reference with Diabetic Specific scale 97% adults and 95% geriatricians shared moderate HRQOL. CONCLUSIONS: Domains of HRQL of diabetic patients was found to be affected moderately so it requires careful management of Diabetes Mellitus. Self-perceived health status was the main predictive factor influencing the overall HRQL.

PDB38 PSYCHOMETRIC PROPERTIES OF THE CHINESE VERSION OF PROBLEM AREAS IN DIABETES SCALE (SG-PAID-C) AMONG HIGH-RISK POLYPHARMACY PATIENTS WITH UNCONTROLLED TYPE 2 DIABETES IN SINGAPORE

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OBJECTIVES: Undetected diabetes distress is a cause of concern. However, the lack of validated questionnaire is a barrier to screening and treatment of diabetes distress. The aim of this study was to examine the validity and reliability of the Chinese version of Problem Areas in Diabetes Scale (SG-PAID-c) and its association with socio-demo- graphic and clinical parameters in patients with type 2 diabetes. METHODS: This cross-sectional study was conducted in four outpatient healthcare institutions in Singapore. Chinese-speaking patients with uncontrolled type 2 diabetes, polypharmacy, and multiple co-morbidities were administered SG-PAID-C and the European Quality of Life-5 Dimensions (EQ-5D) questionnaires as quality of life measures. The factorial construct, convergent validity, and internal consistency of SG-PAID-c were evaluated. RESULTS: The exploratory factor analysis resulted in a three-factor structure of SG-PAID-C with subscales on emotional- and management-related problem (11 items), ability to cope with diabetes problem (3 items) and support-related problem (2 items). The findings also showed good model fit in the confirmatory factor analysis and provided support for the construct and convergent validity of SG-PAID-c. Overall, the internal consistency of SG-PAID-c was good (Cronbach’s alpha = 0.900). Gender and duration of diabetes were positively associated with 16-item SG-PAID-c while age and type of antidiabetic agents were inversely associated with 16-item SG-PAID-c (p < 0.05). CONCLUSIONS: The 16-item SG-PAID-c is a valid and reliable instrument for use among patients with diabetes in Singapore. Future studies on its clinical utility should be conducted.

PDB39 INCREASING TREND OF HEALTH RELATED QUALITY OF LIFE AWARENESS FOR DIABETIC CARE AMONG INDIAN SCIENTISTS

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OBJECTIVES: The health related quality of life (HRQoL) focused research in developing countries is scanty and far between, where 80% of healthcare cost is borne by the patient. Indian patients have different social, socioeconomic and personal situations, which cannot be directly extrapolated to Asian populations. This study was conducted to make an assessment of the trends in HRQoL research in patients with diabetes in India and Asia vis-à-vis the western population. METHODS: We performed literature searches in PubMed, Clinical trials.gov and country-specific registries for 1985-2016 to identify studies investigating HRQoL in patients with diabetes and compared these for those with the US and the UK. RESULTS: Only 46 publications were identified from the database searches (32 by Indian authors). Out of these, only 3.8, 2.0% of that published from USA. The contribution from Bangladesh, Pakistan, Indonesia, Philippines, Sri Lanka and Thailand was negligible. The increasing sensitivity of Indian scientists towards QoL was evident from the increasing number of publications over the years. The numbers of papers published in Indian population increased from 2 in 1991-95 and 1996-2000, 4 in 2001-2005 and 7 in 2006-2010 to 31 in 2011-2016. Similar trends were also observed in other Asian countries. For example, the USA and UK employed generic HRQoL tools, viz. EQ-5D, SF-36, SF-12 and SF-6D. The diabetes specific assessment tools like ADDQoL were used very sparsely. A QoL tool (Quality of Life Instrument for Indian Diabetes patients, QoLID) specific for Indian patients with diabetes has also been developed. Future studies on its clinical utility should be conducted. CONCLUSIONS: The increasing interest into the humanistic burden of diabetes is being increasingly recognized worldwide, including in Asian countries such as India, and may be expected to improve patient care.

PDB40 MARKETING SITUATION AND MEDICAL REFORM POLICY ANALYSIS OF ORAL HYPOGLYCEMIC DRUGS IN CHINA

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OBJECTIVES: To analyze the current marketed hypoglycemic drugs in China, and explore the effect of new medical reform policies on hypoglycemic drugs. METHODS: collect the registration information of oral hypoglycemic drugs from the official websites of the Chinese National Medical Products Administration, and the variety and characteristic of the drugs. RESULTS: There were 9 categories of oral hypoglycemic agents in Chinese market, including 27 chemical drugs (including 9 different dosages) which provided 717 domestic manufacturers and 30 abroad manufacturers, and 26 traditional Chinese medicines (TCMs) which provided by 79 domestic manufacturers. Totally 22 chemical drugs were involved in the national medical insurance list, including 13 chemical ones and 9 TCMs. Among them, only 7 hypoglycemic included in the high-quality essential drug list. Chinese patients didn’t have many choice to choose hypoglycemic drugs, including Glyburide, glipizide, gliclazide, metformin, acarbose, Xiaothankan, ShenqiQiangtang particles. CONCLUSIONS: Oral hypoglycemic chemical agents can basically ensure domestic need of diabetes therapy. In the field of anti-diabetic therapy, traditional Chinese medicines occupied a certain market. The implementation of national essential medicines system and medical insurance policy meet the basic need of diabetic patients to some extents, but more coverage and reimbursement were need for the increasing population and burden of diabetic patients.

PDB41 STUDY OF PRESCRIBING PATTERN OF ANTI-DIABETIC DRUGS IN NEWLY DIAGNOSED TYPE 2 DIABETICS MELLITUS

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OBJECTIVES: To study the prescribing pattern of anti-diabetic drugs in newly diagnosed type 2 diabetes mellitus (T2DM) patients. METHODS: Retrospective observational study, carried out in a south Indian tertiary care teaching hospital. Institutional ethics committee approval was obtained prior to the study. As per the study criteria, data of newly diagnosed T2DM patients admitted during the year 2013 and 2014 was collected from medical records department (MRD) registry using ICD code E11, 9. Drug utilization was measured as DDD/1000 diabetic patients/day. RESULTS: During the study period total 662 patients were newly diagnosed with T2DM. The age mean of study population was 25.2 ± 12.5 years (mean±SD) and 64.5% of patients were male. 164 patients had over weight and 67 patients were obese. Generalized weakness (n=89), fatigue (n=70) and polyuria (n=41) were the most common symptom present at the time of diagnosis. Among the study population 39.4% patients received single anti-diabetic drug, 29.3% patients received dual anti-diabetic and 17.8% patients received multiple anti-diabetic drug treatment. 39.9% patients received only oral anti-diabetic drugs, 18.6% patients received only insulin therapy, while 28.1% patients received combination of oral anti-diabetic drugs and insulin therapy. Consumption of insulin was 4.1 DDD/1000 diabetic patients/day in 2013, which was increased to 6.3 DDD/1000 diabetic patients/day in 2014. Among the oral anti-diabetic drugs biguanides (58.2%) was the most common prescribed, followed by sulfonylureas (29.3%) and alpha-glucosidase inhibitors (5.4%). Combination of biguanides and insulin was prescribed to 13% diabetic patients. A significant rise in anti-diabetic drug prescription of metformin is observed both in 2013 and 2014 (2.7 DDD/1000 diabetic patients/day), whereas consumption of sulfonylureas was decreased from 1.8 DDD/1000 diabetic patients/day in 2013 to 1.6 DDD/1000 diabetic patients/day in 2014. CONCLUSIONS: This study reveals that insulin and metformin was the most prescribed anti-diabetic drug in our hospital.

PDB42 HEALTH CARE DIRECT COST BURDEN OF DIABETES IN MEDICARE BENEFICIARIES WITH OBESITY

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VALUE IN HEALTH 19 (2016) A807-A918