A COMPARISON OF DIABETES KNOWLEDGE AMONG RESIDENTS IN BANGKOK AND OTHER CENTRAL PROVINCES OF THAILAND

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OBJECTIVES: This study aimed to compare the level of diabetes knowledge among the residents in Bangkok (the capital) and other provinces in Central Thailand and investigate factors affecting diabetes knowledge in both groups. METHODS: A cross-sectional survey was carried out in five major areas of Bangkok and four other Central provinces of Thailand in mid-2007. Five hundred Thai residents aged greater than or equal to 15 years in each group were recruited from various public thoroughfares to complete a structured questionnaire comprising seven sections. RESULTS: The overall diabetes knowledge scores of most respondents in Bangkok (70.8%) and other provinces (75.4%) were acceptable (defined as greater than or equal to 50% of the total score). More than half of the respondents had acceptable scores in every section, except for the section ‘diabetes in women’. The mean (±SD) overall score of the other provinces group was significantly higher than that of the Bangkok group (60.95 ± 18.95% vs. 58.21 ± 20.69%, p = 0.029). There were also more respondents with acceptable scores in the other provinces group compared to the Bangkok group in almost every section. Education level, age, and having family member, relative or friend with diabetes were important predictors of knowledge score of respondents in both groups while working status was a significant predictor only in the other provinces group. Friends or relatives and various kinds of media were reported as major sources of diabetes information in both groups. CONCLUSIONS: The level of diabetes knowledge of respondents in both groups was satisfactory, except for a few areas. Characteristics such as education level, age, and having family member, relative or friend with diabetes were all important in determining level of diabetes knowledge of the residents in both groups and should be considered in future planning of public health education programmes.

INSULIN GLARGINE UTILIZATION IN REAL-LIFE—EFFICACY OF A REGIMEN BASED ON INSULIN GLARGINE IN PATIENTS WITH TYPE 2 DIABETES PREVIOUSLY ON NPH INSULIN IN CLINICAL PRACTICE IN SPAIN

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OBJECTIVES: This registry evaluated the effectiveness of an insulin glargine-based regimen in patients with type 2 diabetes (T2D) in clinical practice settings in Spain. METHODS: Patients who switched from neutral protamine Hagedorn (NPH) insulin to glargine at four to nine months prior to inclusion (Study Group) and patients maintained on NPH ≥12 months (Control Group) were included (ratio 2:1) in this cross-sectional, single-visit registry. Retrospective data from four to nine months prior to inclusion and current data at a study visit were recorded. The Diabetes Treatment Satisfaction Questionnaire (DTSQ) and the change version (DTSQc) were completed by patients in both groups. RESULTS: Of 1662 patients enrolled, 1482 were included in this analysis (males/females 690/759); median age 63 (range 19–92) years, BMI 28.5 (17.6–54.9) kg/m2 and diabetes duration 10.8 (0.5–49.0) years. At the switch, mean ± SD HbA1c was 7.9 ± 1.1 and 8.3 ± 1.2% in the Control and Study Groups, respectively. At study visit, 506 (34.1%) and 976 (65.9%) patients were treated with NPH (median dose 36 [8–110] IU) and glargine (30 [6–100] U), respectively; 65.0% and 73.2% were taking oral antidiabetic drugs. Mean ± SD fasting blood glucose was 157.3 ± 47.5 and 137.8 ± 40.7 mg/dL, (p < 0.0001; Student’s t test) and HbA1c reduction was 0.2 ± 0.8% (adjusted mean change: 0.363 ± 0.834%) and 1.0 ± 1.0% (0.874 ± 0.811%) (p < 0.0001, t test; p < 0.0001, ANCOVA for adjusted change). 241 (47.6%) and 213 (21.8%) patients reported symptomatic hypoglycaemia in the last month and 42 and 13 patients had nocturnal hypoglycaemia in the Control and Study Groups, respectively. Improvements in DTSQc scores were reported in the Study Group compared with the Control Group (p < 0.0001; t test). CONCLUSIONS: In this registry in Spain, better glycaemic control was achieved in T2D patients who were switched from NPH to glargine-based regimens compared with patients maintained on NPH. Glargine is related to less frequent symptomatic hypoglycaemia and improves treatment satisfaction.

PATIENT-CENTERED OUTCOMES IN THE ECONOMIC EVALUATION OF TYPE 2 DIABETES TREATMENT: A SYSTEMATIC REVIEW OF MODELING METHODS

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OBJECTIVES: Recent studies of type 2 diabetes patients suggest a strong correlation between self-management, satisfaction with treatment, health outcomes, resource use and costs. However, the extent to which these factors are applied in diabetes economic models is unknown. Our study aim was to review the incorporation of these factors in existing models, and to develop methodological approaches to improve the quality of diabetes economic models. METHODS: A Cochrane-based systematic review was conducted among published diabetes economic models over the past 15 years. Electronic libraries (Medline, EMBASE) were queried using pre-defined search terms and inclusion criteria. Descriptive statistics were calculated. RESULTS: Sixteen models were identified. All utilized biological and clinical risk equations from large epidemiological studies (e.g., UKPDS, DCCT) and clinical trials to project disease progression and future costs. The majority assessed cost-effectiveness, as driven by: 1) applied clinical benefit (e.g., HbA1c reductions) alongside other characteristics (e.g., gender, age, race/ethnicity), and 2) treatment-specific effects and costs for comparative regimen analysis. Most models were developed fairly recently (n = 11, 69%, after 2002), simulated base-case lifetime scenarios (n = 6; 38%), and were structured for patient transition to specified health states (n = 10: 3 decision-analytic, 7 Markov-like). Treatment changes over time were observed in only 25% of models, and none accounted for heterogeneity in medication adherence, persistence or satisfaction. CONCLUSIONS: Economic models in type 2 diabetes contain robust methods for projecting the biological progression and economic burden of disease based on clinical parameters. However, the application of important patient-related factors such as self-management behavior and treatment preference/satisfaction is lacking. Incorporating the impact of these factors through structural and mathematical innovations, namely revising the risk-adjustment of health states and upper/lower-bound settings for probabilistic simulations, is likely to increase the validity and precision of modeled outcomes and costs.