FACTORS ASSOCIATED WITH CONTINUOUS CLINICAL INERTIA AMONG PATIENTS WITH TYPE 2 DIABETES

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OBJECTIVES: Estimate prevalence of and factors associated with prolonged clinical inertia among patients with Type 2 diabetes. METHODS: Using 2000–2005 automated clinical and pharmacy data, we identified an insured cohort of patients with diabetes at the time of oral monotherapy initiation (N = 5082). Actuarial methods were used to estimate time to prolonged inertia (defined as 2 HbA1c values over 8% at least 90 days apart, not yet dispensed insulin with no medication change in the preceding 90 days). Among the subset facing prolonged inertia (N = 1391), actuarial methods and Cox regression were used to estimate time to and factors associated with medication intensification (dose change, class change, or class addition) or control (HbA1c <7%). RESULTS: At inception, mean age was 60.1 years, 48% were female and 37% African American. Mean HbA1c was 8.8% and 97% were dispensed Sulfonylurea or Metformin. 8% of patients faced prolonged inertia within 1 year, 17% within 2 years, 24% within 3 years, and 30% within 4 years. At the time of prolonged inertia, 55% remained on monotherapy, 25% were on combination oral therapy, and 20% had no medication on hand. Mean time to medication intensification/control was 7.3 months, with 27% having neither within 1 year. African American patients (hazard ratio 0.83, 95% CI = 0.72–0.96), those with no anti-diabetic medication dispensing (0.66, 0.54–0.80) or combination oral therapy dispensing (0.83, 0.71–0.97) faced longer delays. Increased delays were also associated with each additional dollar of drug co-payment (0.95, 0.93–0.98). Shortened delays were associated with each additional HbA1c percent (1.11, 1.08–1.15) and each additional visit to emergency department (1.27, 1.02–1.59), primary care (1.80, 1.57–2.15) and endocrinology (1.95, 1.36–2.78). CONCLUSION: Patients with Type 2 diabetes facing prolonged inertia are at risk of further delays in appropriate management. Our findings suggest the presence of multi-level barriers to appropriate care. Increased contact with the health care system may mitigate risk.

IMPACT ON HEALTH CARE COST OF INCREASING BODY MASS INDEX FOR PEOPLE WITH TYPE 2 DIABETES—A CROSS SECTIONAL STUDY IN UNITED STATES

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OBJECTIVES: The increasing prevalence of overweight and obesity in US means increasing cost of treating cardiovascular and other life threatening diseases. This is particularly relevant to people with type 2 diabetes (T2D) of whom over 80% are overweight or obese. Limited data exist on the impact of overweight and obesity on health care cost for the people with T2D. The objective was to identify the relations between health care cost and BMI for people with T2D. METHODS: Generalised Linear Models (GLM) were performed linking demographic variables (age, gender, ethnicity, BMI, HbA1c) and annual cost of medical resources (drugs, hospitalisation and visits to health professionals (PCP’s, cardiologist, diabetes specialist, diabetes nurse, other doctor/nurse)). Data was based on 643 patients diagnosed with T2D, aged between 35 to 64 years and a BMI ≥ 20 kg/m2 (based on physician reported height and weight) from the Adelphi Metabolic Syndrome Disease Specific Programme in 2006. People were stratified according to their BMI; normal/overweight (20–29.99 kg/m2; n = 110), obese (30–34.99 kg/m2; n = 178); very obese (35–39.99 kg/m2; n = 170) and morbidly obese (>39.99 kg/m2; n = 185). RESULTS: The GLM analyses showed a significant impact on health care cost determined by age, BMI and HbA1c. This means that the major significant contributors to the short term health care cost of type 2 diabetes are the people’s age, BMI group and HbA1c level. Compared with a BMI between 20–29.99 kg/m2 moving to the BMI group 30–34.99 kg/m2, 35–39.99 kg/m2, and >39.99 kg/m2 results in an increase in cost of $363 (p <0.06), $553.7 (p <0.05), and $674.4 (p <0.05) per year, respectively. CONCLUSION: These findings suggest that health care costs of type 2 diabetics are positively correlated with age, BMI and HbA1c level. The impact of obesity on health care cost is particularly evident in people with T2D in the high obesity groups.

FACTORS RELATED TO CSII USE AND REASONS FOR DISCONTINUATION

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OBJECTIVES: Continuous subcutaneous insulin infusion (CSII) therapy has become a frequently used and safe treatment in adolescents and children with type 1 diabetes. Despite this, many patients either don’t consider CSII as a potential therapy or decide to discontinue use of CSII, especially during adolescence. Aim of the study was to determine attitudes towards CSII and factors related to it’s discontinuation. METHODS: Onto comprehensive literature research we surveyed attitudes towards CSII in three groups—patients who are still using the CSII (A), patients who stopped CSII (B) and patients who never applied CSII (C). Questionnaire specifications and items were developed with aid of a peer group which consisted of 4 A-patients, 2 B-patients, and 2 C-patients. The questionnaire included nearly 60 attitude items measured on a four point- Likert-type scale (1 = highest, 4 = lowest). After pretest probands (inclusion criteria: between 15 and 25 years) were recruited by their attending physicians. RESULTS: In total, 88 patients from 11 diabetes centers (contacted: 71 centers) were surveyed. From these 88 patients 46 patients belonged to group A, 20 to B and 22 to C. A-patients were significantly (p <0.001) younger (9 years) than patients from the other groups (B: 11 years, C: 15 years), respectively at moment of first diabetes education. Main reasons for refusing CSII were the permanent catheter (1.4 ± 0.6) and CSII annoys during sport (1.8 ± 0.9), CSII is unhandy (1.8 ± 1.0). Reasons for discontinuation were similar: CSII annoys in summer (1.5 ± 0.9), catheter is getting lost during sport (1.7 ± 0.9) and CSII annoys during sport (1.9 ± 1.2). CONCLUSION: There are no main differences between attitudes towards CSII in the three groups. Patients aren’t in doubt about reliability of CSII and main reasons for not trying or discontinuating CSII are associated with the catheter at physical activity. Decision is mainly physician driven.