

PDB11

COMPARATIVE STUDY OF ANNUAL TREATMENT COST OF GLARGINE INSULIN AND DETEMIR INSULIN IN PATIENTS WITH TYPE 2 DIABETES MELLITUS IN MEXICO

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OBJECTIVES: To perform a comparative study comparing annual costs linked to the treatment with Insulin Glargine (IG) and Insulin Detemir (ID) from the Mexican private market perspective. **METHODS:** Clinical data related to each treatment derives, from a study performed by Rosenstock et al (2006): a 52-week open-label, parallel, multinational trial, which compares efficacy and safety of IG and ID. This trial demonstrated no difference in terms of HbA1c and tolerability. However, this study has shown that patients treated with IG required a lower total dose of insulin, and that 55% of patients treated ended up the study with two injections per day in order to reach control. The cost of each insulin regimen was calculating using the unit cost of insulins, needles and blood glucose tests. Cost calculations referred to year 2008 and unit costs were derived from public tenders databases and published tariffs. A sensitivity analysis was performed using a Monte Carlo simulation. **RESULTS:** Overall, patients treated with ID required 59% more insulin than those treated with IG. In patients with DM2, management with IG has lower total costs than IG, which allows savings of US\$474.7 per patient-year. Savings were related to the costs of total insulin, needles and blood glucose tests. Sensitivity analysis showed a range of savings between US\$288 and US\$661 in a 95% confidence interval. **CONCLUSIONS:** For patients with DM2, treatment with Insulin Glargine is an efficacious and cost-saving option compared with ID, because Insulin Glargine is associated with a comparable efficacy and tolerability and lower annual total costs, allowing savings of up to US\$474.7 per patient-year which represents 35.2% of the overall cost of insulin per patient-year.

DIABETES/ENDOCRINE DISORDERS – Patient-Reported Outcomes Studies

PDB12

ADHERENCE TO GLIMEPIRIDE FOR TYPE 2 DIABETICS IN COLOMBIA

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OBJECTIVES: To assess adherence and main causes of discontinuation in diabetic patients who started treatment with glimepiride in real-life settings in Colombia **METHODS:** A cohort of type 2 diabetic patients from 66 centers, who started treatment with glimepiride 4 mg were followed for 1 year. Physical examinations and lab tests were performed according to clinical practice every 3–4 months. Quality of life was assessed (SF-8) at baseline and the end of follow-up. **RESULTS:** 444 patients were included; 43.1% female; mean age: 59.9 ± 12.5 for females and 58.0 ± 13.4 years for men. Most patients had higher education level(73%), 28.5% were retired, and 60% were paying health care out-of-pocket. The most common comorbidity was hypertension (64.1%). Baseline BMI and abdominal circumference: 27.6 kg/m² and 97.9 cm for males and 27.4 kg/m² and 93.2 for females. Mean HbA1c levels and fasting blood glucose: 8.3% and 199.88 mg/dl. Just 4% had additional antidiabetic medications. After one year of follow-up, information on 82% (n = 367) of the patients was available. 75% (n = 332) continued the treatment with glimepiride. The main reason to discontinue the treatment was forgetfulness. All patients who continued the treatment improved their glyemic control with significant changes (p < 0.05) in mean HbA1c (6.57%) and fasting blood glucose (109 mg/dl). Characteristics associated with continuation of treatment, were higher education, higher socioeconomic status, better insurance coverage, and healthy habits. Patients also reported improvement in their quality of life at the end of the follow-up. Only 1 patient reported an adverse event not related with the treatment(hip fracture). No serious adverse events or hypoglycemic events requiring medical attention were reported. **CONCLUSIONS:** In the first year of treatment with glimepiride most patients continue the therapy, and the main reason for discontinuation was forgetfulness. Patients who are adherent to their anti-diabetic therapy, with glimepiride in Colombia, improve glyemic control and improve their self-rated health status.

DIABETES/ENDOCRINE DISORDERS – Health Care Use & Policy Studies

PDB13

ENCUESTA SOBRE LAS PRACTICAS DE UTILIZACION Y TITULACION DE INSULINA EN LATINOAMERICA

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OBJECTIVES: To determine current preferences in the use and titration algorithms for insulin, in physicians currently prescribing glargine for adult diabetic patients in Latin America. **METHODS:** A cross-sectional survey was performed to physicians randomly selected based on their country and specialty. The survey collected information about the practice of the physician, use and preference of insulin and titration algorithm for glargine in type 1 diabetics, and in type 2 diabetics, between September and November 2007. **RESULTS:** A total of 649 physicians from 12 countries in Latin America were included in the analysis. Almost one third of glargine prescribers were endocrinologists, although the distribution by specialty was variable across countries.

For people with type 1 diabetes, physicians preferred the use of long-acting insulin (53.8%). Only a few physicians preferred the use of premixed insulin (16.3%). Almost half of the physicians surveyed reported the use of insulin analogs for combinations in these patients. In people with type 2 diabetes, up to 48% of physicians prefer intermediate insulin alone or combined with rapid-acting insulin analogs (31%), or short-acting insulin (18%). There is more homogeneity in the treatment preference across specialties for these patients. Only 20% reported use of premixed insulin. A simple physician driven weekly dose adjustment algorithm was preferred for the titration of insulin glargine (37%). **CONCLUSIONS:** The use of insulin analogs and intensive titration algorithms is more frequent in physicians that treat people with type 1 diabetes; on the other hand, the use of intermediate-acting insulin and conventional management is more frequent in people with type 2 diabetes. Simple weekly dose adjustment algorithms for titration of glargine with low patient participation are most often used in Latin America.

PDB14

UTILIZACIÓN DE RECURSOS Y GASTOS EN SALUD DE PERSONAS CON DIABETES EN ARGENTINA. UN ANÁLISIS DESCRIPTIVO DE LA ENCUESTA NACIONAL DE UTILIZACIÓN Y GASTOS EN SERVICIOS DE SALUD

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OBJECTIVOS: Realizar un análisis descriptivo de la encuesta de utilización y gastos en salud para personas con diabetes y verificar la existencia de desigualdades en estos indicadores según distintas dimensiones demográficas y socioeconómicas. **METODOLOGÍAS:** Análisis estadístico descriptivo e inferencial: diferencias en medias y proporciones se verificaron mediante Student, ANOVA y Chi2. **RESULTADOS:** Identificamos un 10.2% de diabéticos (N = 1,258,892), cifra similar a la prevalencia por autoreporte encontrada en la Encuesta Nacional de Factores de Riesgo (ENFR). La proporción de hombres y la edad promedio fue mayor a las registradas en la población sin DM [64.7% vs. 48.3%; 53.2 ± 22.9 vs. 39.3 ± 21.4]. El 75.7% de los diabéticos tenía seguro de salud (Seguridad Social el 83.3%). Entre estas personas, en los últimos 30 días: 1) el 75.8% realizó al menos una consulta clínica; 2) el 35.9% se realizó al menos un análisis o práctica; 3) el 1.75% consultó por salud mental; 4) el 92.1% ha usado y el 69.7% comprado, algún medicamento; y 5) el 5.2% se interno en el último año. Algunas de estas tasas de uso fueron significativamente diferentes según el tipo de cobertura médica (p < 0.01). Entre los diabéticos, el gasto medio para muchos de los conceptos fue significativamente menor (p < 0.01) para los afiliados a la Seguridad Social respecto de otros tipos de cobertura. Asimismo, los diabéticos registraron mayores gastos medios de bolsillo en medicamentos (AR\$ 72.3 vs AR\$ 42.7) e internaciones (AR\$ 320.0 vs AR\$ 144.5) que los no DM. **CONCLUSIONES:** Este estudio es el primer análisis descriptivo poblacional que investiga la interrelación de variables socioeconómicas y demográficas con utilización y gasto de bolsillo en personas con DM de Argentina. Estos resultados son útiles para la programación, elaboración y evaluación de programas de atención y prevención de diabetes en el sistema de salud argentino.

GASTROINTESTINAL DISORDERS – Clinical Outcomes Studies

PG11

A STRONG NONLINEAR RELATIONSHIP BETWEEN ADHERENCE WITH DRUG THERAPY AND CONTINUOUS RISK FACTORS IN PPI USERS

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OBJECTIVES: Current understanding of the impact of continuous predictors of patient adherence, such as copayment, age, and number of refills prescribed with drug therapy is largely based on the results of parametric multivariate regression analyses. In such a regression, the copayment is usually introduced as a linear effect of continuous risk factors or as a multi-level categorical variable. To assess the potential impact of the a priori assumption of linearity or categorization on the results of parametric analyses, the authors completed an analysis using an assumption-free nonparametric modeling approach. **METHODS:** The data set included 42,221 patients new to PPI therapy. The outcome variable was defined as the total number of 30-day refills that patients obtained during a 6-month follow-up period. The effects of copayment, age, and number of refills prescribed on adherence, adjusted for other common risk factors, were estimated using a smoothing spline method available in the generalized additive model extension of the Poisson regression. **RESULTS:** The generalized additive model fits the data significantly (p < 0.01) better than the parametric Poisson regression. The authors conclude that there are strong and practically important nonlinear relationships between adherence and analyzed continuous independent predictors. **CONCLUSIONS:** The linear approximation or categorization of these effects inherent in parametric models may result in biased estimates of the effects of adherence.