PDB2

A PHARMACOECONOMIC EVALUATION FOR DIABETES TYPE 2 (DM 2) PATIENTS WITH INHIBITORS OF DIPEPTIDYL PEPTIDASE-4 (DPP-4) AND THIAZOLIDINEDIONES (TZD) AS ADD-ON THERAPY

Fon F[1], Celaya JM[2], Ayala C[3], Antunez O[4], Garcia-Contreras F[5]
[1]Novartis, Mexico City, Mexico, [2]Novartis, Mexico DF, Mexico, [3]Epieconomics Research, Mexico, DF, Mexico, [4]Novartis, Mexico, DF, Mexico, [5]Mexican Institute of Social Security, México, Distrito Federal, Mexico

OBJECTIVES: The objective of the study is comparing the cost-effectiveness ratios, between vildagliptin 100 mg, sitagliptin 100 mg, rosiglitazone 8 mg and pioglitazone 30 mg as add-on therapy in patients with failure to metformin. **METHODS:** A meta-analysis of published rosiglitazone, pioglitazone, sitagliptin and vildagliptin trials with failure to metformin were performed. A decision analytic model with a decision tree with Bayesian approach was developed. Cost-effectiveness analysis was made. Resources utilization included emergency room patients, outpatients and hospital inpatients services, drugs, etc. Data were obtained from hospital records. The information was validated by an expert panel. The unit costs were gotten from the Mexican Institute of Social Security (IMSS). The perspective was from IMSS. Analysis was conducted on a 12-month period and discounting rate was not used. An incremental cost-effectiveness ratio and incremental net benefits were obtained. One-way, two-way and probabilistic sensitivity analyses were performed and acceptability curves were constructed. **RESULTS:** The lower expected cost was with vildagliptin US$1,434, while higher expected cost was with pioglitazone US$5033, the lowest cost per succesfull unit was the one based on vildagliptin US$1304, while the highest was the one based on sitagliptin US$5136. ICER analyses show that vildagliptin was a dominant alternative over sitagliptin, pioglitazone and rosiglitazone. The incremental net benefits were higher for vildaglitin strategy in independent way to willingness to pay. Results were robust to sensitivity analyses. **CONCLUSION:** Vildagliptin 100 mg was dominant therapy as add on therapy in patients with failure to metformin over sitagliptin, rosiglitazone y pioglitazone in DM 2 patients.

PDB3

COMPARING EFFICIENCY OF INSULIN GLARGINE VS. NPH INSULIN IN PATIENTS WITH TYPE 2 DIABETES

Kodela B[1], Petrovic J[2], Velickovic-Radovanovic R[2], Lilic R[2], Radenkovic S[2], Dedovic I[3]
[1]Pharmaceutical Institution, Nis, Serbia and Montenegro, [2]Clinical Centre, Nis, Serbia and Montenegro, [3]Faculty of Farmacy, Nis, Serbia and Montenegro

OBJECTIVES: A large number of patients with type 2 diabetes require application of insulin in the course of the disease. Because of increasing application of basal analogues in the therapy, the purpose of this paper is to compare the efficiency of application of insulin glargine with NPH insulin. **METHODS:** At Endocrinology Clinic in Nis patients were observed who previously received NPH insulin once a day and then switched to glargine therapy once a day. Glycemia values were analyzed expressed in mmol/L and HbA1C in %. Laboratory values of glycemic status were observed before the application of glargine insulin and after its three-month application. At the same time records were kept concerning diabetes complications, associated diseases and oral anti-diabetics therapy. **RESULTS:** In the 2003–2006 period there was a 32% increase in the number of patients with type 2 diabetes on insulin therapy. This research included 57 patients in total. The average fasting glycemia value in patients on NPH insulin was 10.4 mmol/L while HbA1C level was 9.8%. After three months of application of glargine insulin the average fasting glycemia value was 7.9 mmol/L and HbA1C was 7.4%. The average reduction of HbA1C in three months of application of insulin glargine was 1.8% ($p > 0.001$). The most commonly registered complications of diabetic patients were retinopathy (58%) and neuropathy (67%). The most commonly associated disease with diabetes was hypertension (35%). Along with insulin therapy, the most commonly used oral diabetics are from sulfonylurea group (46%) and biguanidines (51%). **CONCLUSION:** Based on performed researches and received results we can conclude that the application of insulin glargine is more efficient compared to insulin NPH because it achieves better glyco-regulation therapy slowing and delaying diabetes complications.

PDB4

A PHARMACOECONOMIC EVALUATION FOR DIABETES TYPE 2 (DM 2) WITH INHIBITORS OF DIPEPTIDYL PEPTIDASE-4 (DPP-4) AND THIAZOLIDINEDIONES (TZD) IN MONOTHERAPY

Celaya JM[1], Fon F[1], Ayala C[2], Antunez O[3], Garcia-Contreras F[4]
[1]Novartis, Mexico City, Mexico, [2]Epieconomics Research, Mexico City, DF, Mexico, [3]Novartis, Mexico, DF, Mexico, [4]Mexican Institute of Social Security, México, Distrito Federal, Mexico

OBJECTIVES: The inhibitors of the DPP-4 has been shown to enhance the physiological effects of incretin hormones such as glucagone-like peptide and glucose-dependent insulinotropic peptide thereby increasing ƒÑ-cells and ≤]-cells sensitivity to glucose. The objective of the study is comparing the cost-effectiveness ratios, between vildagliptin 100 mg, sitagliptin 100 mg, rosiglitazone 8 mg and pioglitazone 30 mg. **METHODS:** A meta-analysis of published rosiglitazone, pioglitazone, sitagliptin and vildagliptin trials were performed the effectiveness were obtained by means of a fit put-analysis according to the basal one of HbA1c of 9%. A decision analytic model with a decision tree with Bayesian approach was developed. Cost-effectiveness analysis was made. Resources utilization included emergency room patients, outpatients and hospital inpatients services, drugs, etc. Data were obtained from hospital records. The information was validated by an expert panel. The unit costs were gotten from the Mexican Institute of Social Security (IMSS). The perspective was from IMSS. Analysis was conducted on a 12 month period and discounting rate was not used. An incremental cost-effectiveness ratio and incremental net benefits were obtained. One-way, two-way and probabilistic sensitivity analyses were performed and acceptability curves were constructed. **RESULTS:** The lower expected cost was with vildagliptin US$9176, while higher expected cost was with pioglitazone US$12,002, the lowest cost per succesfull unit was the one based on vildagliptin US$8,342, while the highest was the one based on sitagliptin US$16,718. Incremental cost-effectiveness ratio (ICER) analyses show that vildagliptin was a dominant alternative over sitagliptin, pioglitazone and rosiglitazone. The incremental net benefits were higher for vildaglitin strategy in independent way to willingness to pay. Results were robust to sensitivity analyses. **CONCLUSION:** Vildagliptin 100 mg dominant is the dominant alternative as monotherapy over sitagliptin, rosiglitazone y pioglitazone in type 2 diabetic patients.