be more efficacious than other GLP-1 analogues in reducing HbA1c (mean change -1.1%/-1.2% for liraglutide 1.2mg/1.8mg; -0.6%/-0.9% exenatide 5mcg/10mcg BID; -0.6% lixisenatide 20mcg). Liraglutide was superior or comparable to other GLP-1 analogues in terms of weight, PPG, SBP, and FPG. **CONCLUSIONS:** Liraglutide offers efficacious treatment in terms of HbA1c, FPG, PPG, SBP compare to other GLP-1 analogues and seems to offer a weight control advantage among patients on multiple OADs. The likelihood of hypoglycemic events does not appear to differ among GLP-1s. Our analysis was limited by the relatively small number of studies available and we were not able to adjust for some observed differences in patient characteristics, which may have affected the evaluation. As such, the findings should be interpreted with some caution.

PDB10

INDIRECT COMPARISON TO EVALUATE THE EFFICACY AND SAFETY OF DIPEPTIDYL PEPTIDASE-4 INHIBITORS (DPP4I) AND SODIUM-GLUCOSE COTRANSPORTER 2 INHIBITORS (SGLT2I) ADDED TO INSULIN THERAPY IN TYPE 2 DIABETES

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OBJECTIVES: To evaluate relative efficacy and safety of SGLT2i compared to DPP4i in patients with type 2 diabetes mellitus (T2DM) in the absence of head-to-head evidence. **METHODS:** A systematic search of the literature was conducted in MEDLINE, EMBASE, LILACS, the Cochrane Central Register of Controlled Trials, and Clinicaltrials.gov to June 2015. Selected studies were randomized controlled trials (RCTs) that compare DPP4i plus insulin (DPP4i/INS) or SGLT2i plus insulin (SGLT2i/INS) with placebo plus insulin (PCB/INS), as a common comparator, in patients with T2DM. The primary outcome was the change in HbA1c from baseline to the end of the intervention period. The secondary outcomes included the change in fasting plasma glucose, the change in body weight, and the event of hypoglycemia. Covariate-adjusted indirect comparison using meta-regression analyses was performed. **RESULTS:** We included 15 eligible RCTS comprising 6,980 patients, of which 9 were DPP4i studies and 5 were SGLT2i studies. Covariate-adjusted analyses showed that SGLT2i/INS achieved greater reduction in HbA1c (WMD -0.24%, 95% CI -0.43 to -0.05%) and fasting plasma glucose (WMD -18.0mg/dL, 95% CI -28.5 to -7.6 mg/dL) with greater weight reduction (WMD -2.38 kg, 95% CI -3.18 to -1.58 kg) than DPP4i/INS without increasing the risk of hypoglycemia (RR 1.19, 95% CI 0.78 to 1.82). **CONCLUSIONS:** The addition of SGLT2i on top of pre-existing insulin therapy exhibits a better glycemic control and greater weight reduction than DPP4i in patients with inadequately controlled T2DM.

PDB11

A MULTIVARIATE SAFETY AND EFFICACY ANALYSIS OF PRESCRIBING INFORMATION FOR NEXT GENERATION SGLT-2 INHIBITORS IN TYPE 2 DIABETES TREATMENT

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OBJECTIVES: Sodium-glucose transport protein 2 (SGLT-2) inhibitors demonstrate favorable efficacy profiles that include glycemic control and reductions in body weight but are associated with adverse events including ketoacidosis, urinary tract infections, candida vulvovaginitis, and hypoglycemia. This comparative safety and efficacy analysis is designed to compare relevant clinical endpoints in the prescribing information labels of available SGLT-2 inhibitors and identify the most prevalent and clinically significant outcomes which are crucial in the management of patients with type 2 diabetes (T2D). **METHODS:** A multivariate analysis was undertaken using clinical endpoints from product information labels (n=3; canaglifozin, dapagliflozin, empagliflozin) of available SGLT-2 inhibitors. Compounds with 24- to 26-week, placebo-controlled endpoint data were analyzed. Efficacy endpoints included change from baseline in hemoglobin A1c (%) and body weight (kg). The safety endpoints included percentage of patients reporting adverse events, including urinary tract infections, female genital mycotic infections, and incidence of hypoglycemic events (%). **RESULTS:** No compound outperformed competitors in all predefined outcome measures after 24- to 26- weeks of treatment. Canagliflozin 300 mg + metformin reported the greatest reduction in body weight (-4.07 kg) and the greatest reduction in HbA1c (-1.06%). However, canagliflozin 300 mg + metformin (4.6%) reported the greatest incidence of hypoglycemia events and the greatest incidence of urinary tract infections (11.4%) after 26 weeks. **CONCLUSIONS:** Despite the robust efficacy profiles presented in this analysis, physicians should consider the potential adverse events associated with each SGLT-2 inhibitor before deciding on a treatment regimen. Diabetes treatment regimens are often highly individualized, and healthcare providers must weigh the benefits of any treatment with its attendant risks. Of special concern among SGLT-2 inhibitors is the recent US FDA warning of increased risk for diabetic ketoacidosis associated with these compounds.

PDB12

"EFFICACY AND SAFETY BARIATRIC SURGERY VS. CLINICAL TREATMENT IN CONTROL OF LEVELS GLYCEMIC AND REMISSION DIABETES MELLITUS TYPE II IN PATIENTS OBESE"

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OBJECTIVES: Evaluate the results on the efficacy and safety of bariatric surgery vs. medical treatment in remission of type 2 diabetes mellitus (T2DM) and control of blood glucose levels in patients with Body Mass Index ≥ 30. **METHODS:** Following the methodological guidelines for the development of PTC Ministry of Health, was first drafted the guiding question of the study through the PICO, then a search was conducted in the main databases (PubMed, Embase, Cochrane, Lilacs and CRD). Each study recovered in the databases was selected and evaluated by two independent researchers, their inconsistencies resolved by consensus, when there was no consensus, the assessment of a third investigator was requested. **RESULTS:** Bariatric surgery showed to be effective and safe in reducing glycated hemoglobin levels, fasting blood glucose levels as well as the augmenting the chances of remission of type II diabetes in obese patients. **CONCLUSIONS:** However, the variability in the magnitude of the results indicated the need for new data from the 18 ongoing clinical trials. In other words, the technology "bariatric surgery" is efficacious as a whole, but there is a high variability in the treatment effect, depending of surgical technique.

PDB13

A CROSS-SECTIONAL STUDY ON INSULIN TREATMENTS AND GLYCEMIC CONTROL IN TYPE 2 DIABETES IN FRANCE, ITALY, GERMANY, UK AND SPAIN

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OBJECTIVES: During the progressive course of type 2 diabetes mellitus (T2DM) a sizeable proportion of patients require insulin therapy to maintain long-term glycemic control. The objective of this study was to realize a snapshot of characteristics and glycemic control of patients with T2DM treated by insulin in five European countries. **METHODS:** T2DM patients, over 40 years old, treated by insulin (basal only therapy [BOT], premix, prandial or a basal-prandial free combination) ± non-insulin antidiabetic drugs for at least 18 months, were identified in primary care electronic medical record databases of France, Italy, UK; Germany and Spain (IMS Health Longitudinal Patient Databases) during years 2013-2014. Patients' characteristics, medical history, treatment regimen, HbA1c values were retrieved and analyzed **RESULTS:** Median age was 71.4 years in Italy (n=7339), 70 in Germany (n=3079), 67 in UK (n=16,941), 68.2 in France (n=3046) and 70.3 in Spain (n=1710). About half of patients had a BMI ≥ 30 and hypertension was present in 69% (UK) to 88% (Germany). A majority was treated with BOT in France (51%) and Spain (60%), basal-prandial in Italy (48%) and in Germany (33%), and premix insulin in UK (41%). BOT was the second most commonly prescribed regimen in Germany and Italy. Metformin was the most frequently prescribed concomitant oral antidiabetic drug. Mean HbA1c was 7.8% in Italy, 7.7% in Germany, 8.4% in UK, 7.9% in France and 8% in Spain. Overall, more than three quarter of patients (between 74% in Italy and 83% in UK) had a HbA1c ≥7%, whilst 33% (Germany) to 55.5% (UK) of them had a HbA1c ≥8%. **CONCLUSIONS:** While regimens and patients characteristics may vary among countries, these results show that, despite having been treated with insulin for at least 18 months, a sizeable proportion of patients exhibit a suboptimal glycemic control.

PDB14

PATTERNS OF PHARMACOLOGICAL TREATMENT IN TYPE 2 DIABETES IN FRANCE IN 2013

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OBJECTIVES: With the introduction and delisting of some glucose-lowering medications, pharmacological treatments in T2D have changed in the recent years and details of the current drug use patterns are not known. This descriptive study aims to describe characteristics of patients with type 2 diabetes and patterns of use of antihyperglycemic agents in France in 2013. **METHODS:** A random sample of ≈ 600,000 patients registered in the French national health insurances reimbursement database was used. Patients with diabetes were identified through their use of glucose-lowering medication and coding of hospital stays and long-standing condition insurance coverage in the database. Drug utilization pattern of antihyperglycemic agents were estimated considering prescriptions in Q4 2013 and compared to data from Q4 2007. **RESULTS:** Overall 28,708 patients with T2D (estimated database prevalence 4.5%, 8.8% in people aged 40 and over) were identified in 2013. Mean age was 67.5 (SD 12.9), 54.1% were male. In Q4, 41.2% of T2D pharmacologically treated patients received a monotherapy, 25.6% a dual therapy, 13.7% a multi-therapy and 19.5% an insulin therapy with or without other hypoglycemic agents. Compared to 2007 data, a slight but significant increasing trend toward combination therapies and insulin was observed. The use of metformin increased over time especially in monotherapy (66% among monotherapy in 2013 versus 50% in 2007). All thiazolidinediones and some sulfonylureas treatments were replaced by DPP-4 inhibitors and to a much lesser extent with GLP-1 analogues. **CONCLUSIONS:** Antihyperglycemic prescription patterns in France have changed in recent years in parallel with the introduction of different classes of medications to the marketplace but probably also in an attempt to improve glycemic control of patients. Knowledge of real life pattern of drug utilization remains an important dimension to better understand therapeutic needs in T2D management.

PDB15

PRESCRIPTION PATTERNS OF ANTIDIABETIC TREATMENT IN THE ELDERLY. RESULTS FROM SOUTHERN ITALY

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OBJECTIVES: Diabetes in the elderly is a major challenge both in terms of clinical management and of public health. Evidence about prescribing patterns in the elderly diabetic population is limited. The aim of the present study was to describe trends in antidiabetic drug (AD) utilization patterns in the elderly in Southern Italy with a focus on drugs for cardiovascular prevention and pharmaceutical costs. **METHODS:** The data used for this retrospective cross-sectional study was obtained from pharmacy records of Caserta Local Health Authority. Subject >65 years who received at least one dispensing of antidiabetic between January2010-December2014 were selected.