OBJECTIVES: A once-weekly formulation of exenatide (EQW) received positive opinion from the EMA in April 2011 for the treatment of type 2 diabetes. No head-to-head comparisons are available for EQW (the dose recommended by NICE) has been conducted therefore a network meta-analysis to compare EQW to liraglutide 1.2mg in terms of effect on HbA1c was performed. METHODS: A systematic review was conducted to identify randomized controlled trials of EQW and liraglutide 1.2mg (±1.8mg) of 24 weeks duration and the common comparator was basal insulin glargine and exenatide bid to allow a network meta-analysis. Additionally, the manufacturing companies were asked to provide any unpublished data from studies meeting the criteria. 22 studies including 10,816 patients met our inclusion criteria. Treatments were compared in terms of mean difference in HbA1c from baseline to placebo. Additionally, EQW was compared to both doses of liraglutide, and liraglutide 1.2mg was compared to liraglutide 1.8mg. RESULTS: Results from random effects models controlling for baseline HbA1c are presented. Analysis of change in HbA1c showed that EQW achieved a mean difference of -1.5% (95% CI: -1.31, -1.00) for EQW, -1.01% (95% CI: -1.18, -0.85) for liraglutide 1.2mg, and -1.18% (95% CI: -1.32, -1.04%) for liraglutide 1.8mg. The comparison of EQW to liraglutide 1.2mg and liraglutide 1.8mg showed a mean difference (95% CI) of -1.34% (-0.34, 0.66) and 0.05% (-0.14, 0.18) respectively. Liraglutide 1.2mg compared to liraglutide 1.8mg showed a mean difference in HbA1C of 0.17% (0.02, 0.30). Results were consistent when controlling for use of background antihyperglycemic medications.

CONCLUSIONS: Our analysis suggests EQW and both doses of liraglutide have robust and similar efficacy with respect to lowering of HbA1c. Further analysis is warranted to investigate the indirect and indirect evidence with respect to the comparison of EQW to liraglutide 1.8mg.

PDB9

WEIGHT LOSS, INDEPENDENT OF DRUG CLASS, PREDICTS HBA1C GOAL ATTAINMENT IN PATIENTS 65 YEARS AND OLDER IN A REAL-WORLD SETTING

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OBJECTIVES: To evaluate weight change and glycemic control in patients age 65+ with type 2 diabetes (T2DM) in a usual-care setting. METHODS: Treatment naive patients age 65+ years with T2DM and a prescription (index date) for a sulfonylurea (SU), metformin (MET), thiazolidinedione (TZD), GLP-1 agonist (GLP-1), or DPP-4 inhibitor (DPP-4) were identified in an electronic medical record database from 1/1/2000 to 6/30/2010. HbA1c <7% or >7% and weight gain or loss of >5% were assessed 1 year post-index. Logistic regression identified the likelihood of weight loss and attainment HbA1c goal by antidiabetic drug class, controlling for baseline HbA1c and weight, and for weight change for HbA1c goal attainment. RESULTS: Of 12,473 patients, 46.4% were male and the mean age was 71.7 (+3.9) years. At baseline, 26.7% had HbA1c >7%, mean weight 86.8 (+18.7) kg. Breakdown by drug class was: MET 10.0%, SU 21.6%, TZD 11.6%, DP-4 1.9%, and GLP-1 0.6%. At 1 year, 34.8% lost >3% of body weight and 46.5% had an HbA1c <7%. In logistic regression analyses, MET and DPP-4 (OR 1.4 and 1.36, p<0.05) were associated weight loss relative to SU, TZDs were negatively associated with weight loss (OR 0.86, p<0.05), and GLP-1 did not differ (OR 1.55, p=0.08). Patients who lost weight were 2.36 times as likely as those who did not to attain HbA1c goal (p<0.05). Drug class was not associated with HbA1c goal attainment (p>0.05). CONCLUSIONS: In patients with T2DM age 65+, those who lost weight were more likely to attain HbA1c goal than those who did not. MET and DPP-4 were associated with weight loss vs. SU, but drug class was not associated with HbA1c goal attainment. These findings support guideline recommendations to consider weight-effect properties of antidiabetics in treating T2DM with data specific to ages 65+.

PDB10

ACHIEVING TARGET GOALS IN PATIENTS WITH T2DM TREATED WITH EXENATIDE ONCE WEEKLY OR INSULIN GLARGINE: A RETROSPECTIVE ANALYSIS OF THE NUMBER-NEEDED-TO-TREAT

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OBJECTIVES: This retrospective cohort study used data from the Medical Quality Improvement Consortium of ambulatory medical practices that use Centricity Of Care from GE Healthcare IT as their electronic medical record. Patients with T2D treated with either exenatide or insulin glargine in real-world setting.

METHODS: This retrospective cohort study used data from the Medical Quality Improvement Consortium of ambulatory medical practices that use Centricity Of Care from GE Healthcare IT as their electronic medical record. Patients with T2D treated with either exenatide or insulin glargine in real-world setting.

RESULTS: Exenatide twice daily (exenatide) and insulin glargine once daily, GLP-1 receptor agonists, have demonstrated improvements in glycemic outcomes for patients with type 2 diabetes (T2D) in randomized clinical trials. We evaluated A1c outcomes for all patients initiating exenatide or insulin glargine and for those switching from one to another. Exenatide twice daily (exenatide) and insulin glargine once daily, GLP-1 receptor agonists, have demonstrated improvements in glycemic outcomes for patients with type 2 diabetes (T2D) in randomized clinical trials. We evaluated A1c outcomes for all patients initiating exenatide or insulin glargine and for those switching from one to another. Exenatide twice daily (exenatide) and insulin glargine once daily, GLP-1 receptor agonists, have demonstrated improvements in glycemic outcomes for patients with type 2 diabetes (T2D) in randomized clinical trials. We evaluated A1c outcomes for all patients initiating exenatide or insulin glargine and for those switching from one to another.

CONCLUSIONS: In this retrospective cohort study, glycemic outcomes similarly improved for patients initiating exenatide or insulin glargine.

PDB12

GLARINE UTILIZATION IN RUSSIA: A PROSPECTIVE STUDY TO EVALUATE PATIENTS SWITCHED FROM NPH INSULIN TO INSULIN GLARINE COMPARED WITH THOSE MAINTAINED ON NPH

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OBJECTIVES: The LAntus Utilisation in RUSsia Study 2 (LAURUS 2) was an observational study undertaken at 245 sites as a follow-up to the LAURUS study. It evaluated the efficacy of switching patients with type 2 diabetes mellitus (T2DM) from NPH insulin to insulin glargine in real-life clinical practice. METHODS: Eligible adult patients had taken NPH and oral antidiabetic drugs (OADs) for >12 months. During the 12-week study period all patients continued OADs. The active arm included patients whose physicians switched their basal insulin from NPH to glargine. Patients in the control group continued on NPH. Primary endpoints were change in HbA1C. Secondary endpoints included changes in fasting blood glucose (FBG) and insulin dose and hypoglycaemic episodes (HSEs). RESULTS: Data were available for 397 of 500 patients from the 300 enrolled patients. Patients had a mean duration of diabetes of 9.3 ± 5.1 y and mean duration of insulin therapy of 2.6 ± 2.6 y. Mean baseline HbA1C was 9.0 ± 1.5 % and 9.2 ± 1.4 % in the NPH and glargine groups, respectively. After 12 weeks, mean HbA1C decreased by 0.6% ± 1.7 % in the NPH group and 1.4% ± 1.7% in the glargine group, respectively (P <0.001). HbA1C >7% was attained by 8.4% and 25.8% of patients, respectively. Mean FBG decreased 1.4 ± 1.7 mmol/L and 3.3 ± 2.1 mmol/L, respectively (P <0.001). Mean insulin dose increased in both groups. At baseline, ≥1 hyperglycaemic episode was reported by 0.4% and 0.7% of NPH and glargine patients, respectively. At 12 weeks, no glargine patients reported severe hypoglycaemia, but 2 (0.8%) NPH patients had at least 1 episode.

CONCLUSIONS: In this observational study, switching patients with T2DM who were inadequately controlled on NPH to glargine improved glycaemic control with minimal incidence of severe hypoglycaemia.

PDB13

A PROSPECTIVE REGISTRY TO IDENTIFY PATIENTS’ CHARACTERISTICS ASSOCIATED WITH ACHIEVING TARGET METABOLIC CONTROL AFTER THREE MONTHS TREATMENT WITH INSULIN GLULISINE IN TYPE 1 AND 2 DIABETES MELLITUS PATIENTS PREVIOUSLY UNCONTROLLED ON BASEL INSULIN AND/OR OTHER ANTI-DIABETIC TREATMENT (API REGISTRY)

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OBJECTIVES: Baseline population-based studies showed that glycemic control (HbA1C >7.0%) is often not achieved in patients with either type 1 (T1DM) or type 2 (T2DM) diabetes mellitus. The aim of this prospective registry was to identify patient characteristics associated with achieving HbA1C >7.0% in a real-life setting in 3 months after adding insulin glulisine to previous anti-hyperglycaemic therapies. METHODS: The API registry included adult patients with T1DM or T2DM who were receiving basal insulin (± anti-diabetic agents) and still had HbA1C >7%. Patients for whom the treating physician had initiated the addition of insulin glulisine within the month prior to study entry were assessed at baseline and 3 months. Logistic regression using the backward elimination technique was performed to identify the patient characteristics. RESULTS: HbA1C was available at

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