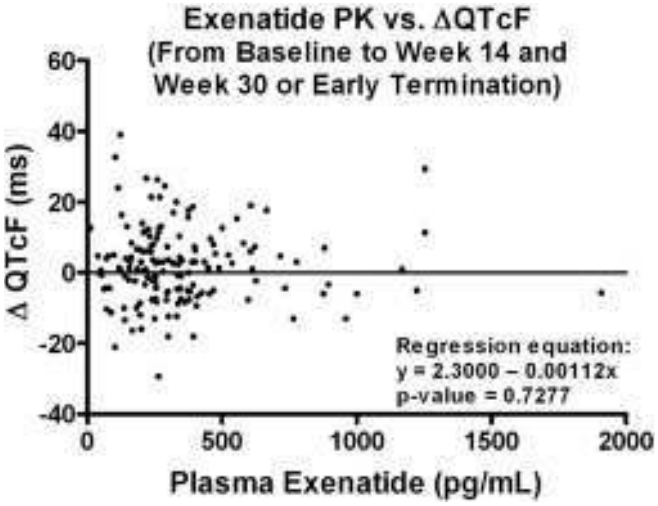
tients with the highest exenatide concentrations or renal insufficiency (n=55). Concentration-QTc analysis did not demonstrate a correlation between exenatide concentration and ΔQTcF (Figure).
Conclusion: In this study, exenatide once weekly treatment did not affect cardiac repolarization, measured by the QTcF interval, in patients with type 2 diabetes.



Clinical Trial Registration Number: NCT00308139

803

The risk of heart failure among patients receiving exenatide twice daily versus other glucose-lowering medications for diabetes: a matched retrospective analysis of the GE Healthcare EMR data
J.H. Best[1], D. Maggs[1], W. Little[2], E. Chiquette[1], W.B. Saunders[3];
[1]Amylin Pharmaceuticals, Inc., San Diego, USA, [2]Wake Forest University, Winston-Salem, USA, [3]GE Healthcare, Charlotte, USA.

Background and aims: Exenatide twice daily (ExBID), a glucagon-like peptide-1 (GLP-1) receptor agonist, has demonstrated improvements in cardiovascular risk factors in patients with diabetes. We hypothesized that the addition of ExBID to other glucose-lowering therapies may reduce the risk of developing heart failure, defined as diagnosis of ICD-9 code 428 or brain natriuretic peptide >100 pg/mL. This retrospective matched cohort study used data obtained from the national Medical Quality Improvement Consortium of ambulatory medical practices (>14,000 providers) that use Centricity Office from GE Healthcare IT as their electronic medical record.
Materials and methods: Patients with diabetes receiving a prescription for glucose-lowering therapy (ExBID, insulin [INS], and/or other [OTH, excluding ExBID and INS]) between 1 Jan 2005 and 30 Sept 2010 were identified (n = 778,408). Therapies may have been prescribed serially or concomitantly. Patients using ExBID were randomly matched 1:1 to patients not receiving ExBID based on gender, 10 year age band, follow-up time, and any use of thiazolidinediones. Odds ratios (OR) were calculated using conditional logistic regression models with and without adjustment for weighted Charlson Comorbidity Index (CCI), a disease severity measure.
Results: Without adjustment for CCI, the rate of heart failure (affected/total) among patients that received ExBID+INS+OTH was 4.15 vs 8.88 for INS+OTH (OR = 0.41; 95% CI = 0.33-0.50). The rate of heart failure among patients that received ExBID+OTH was 1.54 vs 2.34 in matched controls (OR = 0.66; 95% CI = 0.58-0.75). After adjustment for CCI, risk of heart failure for patients who received ExBID+INS+OTH was 57% lower vs INS+OTH (OR = 0.43; 95% CI = 0.40-0.47; n = 48,184). With adjustment for CCI, the risk of heart failure for patients who received ExBID+OTH was 38% lower vs OTH (OR = 0.62; 95% CI = 0.54-0.70; n = 53,354). Finally, in a model adjusting for CCI that included all patients that received ExBID vs all non-ExBID controls, the risk of heart failure was 51% lower (OR = 0.49; 95% CI = 0.46-0.52; n = 101,538).
Conclusion: In this analysis the addition of ExBID to glucose-lowering regimens for the treatment of diabetes was associated with reduced risk of developing heart failure.

804

The Association of British Clinical Diabetologists (ABCD) nationwide exenatide and liraglutide audits
R.E.J. Ryder, K.Y. Thong, M.L. Cull, A.P. Mills, C. Walton, ABCD nationwide exenatide and liraglutide audit contributors;
Diabetes, Endocrinology and Lipids Metabolism, City Hospital, Birmingham, UK.

Background and aims: To compare use and efficacy of exenatide and liraglutide in two large scale nationwide audits of real clinical practice.
Materials and methods: Exenatide/liraglutide audits respectively: 128/64 centres across UK submitted anonymised data on 6717/3010 patients during 2007-2009/2009-2010. Previous exenatide users were excluded from liraglutide analysis leaving 2303 patients.
Results: Baseline characteristics of patients are shown in Table 1. All data expressed as exenatide/liraglutide. At 6 months, mean (SE) HbA1c reduction were 0.75(0.04) v 0.93(0.07)% (difference, p=0.040) among 3166 patients. Weight reduction were 6.5(0.1) v 3.7(0.2) kg (difference, p<0.001) among 2790 patients. All HbA1c and weight changes from baseline were significant (p<0.001). Exenatide/liraglutide data for cholesterol reduction were 0.16(0.03)/0.14(0.05) mmol/L, triglycerides reduction were 0.14(0.06)/0.26(0.10) mmol/L and systolic blood pressure reduction were 3.6(0.6)/4.6(0.9) mmHg. These were significant from baseline (at least p<0.05). There was no change in diastolic blood pressure in the exenatide audit but with liraglutide this fell by 1.2(0.5) mmHg (p=0.023). Baseline treatment use(discontinuation) was sulphonylurea 49.5/42.8(6.5/5.3)%, thiazolidinedione 27.1/20.5(13.4/7.5)%, DPP4 inhibitor 2.2/10.9(1.4/9.3)%, insulin 33.9/39(8.1/2.6)%.
Conclusion: These very large audits reveal the effectiveness of these agents in much heavier and more poorly controlled patients than those studied in clinical trials. Patients achieved greater HbA1c reduction but lesser weight reduction in the liraglutide audit as compared with the exenatide audit. However, there were lesser insulin and TZD discontinuation but greater DPPIV inhibitor discontinuation in the liraglutide audit. Contributors might have learnt from the previous use of exenatide to avoid over-reduction of diabetes treatment when initiating liraglutide
Table 1: Baseline characteristics of patients in the ABCD nationwide exenatide and liraglutide audit

	Exenatide	Liraglutide	p-value
n	6717	2303	
Male (%)	54.9	54.1	0.491
Caucasian (%)	84.4	90.4	<0.001
Age (yrs)	54.9 (10.6)	55.4 (11.2)	0.033
Diabetes duration (yrs)	8 (5-13)	9 (5-13)	0.424
HbA1c (%)	9.47 (1.69)	9.32 (1.72)	0.001
Weight (kg)	113.8 (23.4)	111.1 (23.0)	<0.001
BMI (kg/m^2)	39.8 (8.0)	39.1 (7.5)	<0.001
Single oral therapy (%)	21.6	12.0	<0.001
Dual oral therapy (%)	27.6	28.1	0.709
≥3 oral therapy (%)	6.5	17.9	<0.001
On insulin (%)	33.9	39.8	<0.001

Results quoted as mean (SD) and median diabetes duration (inter-quartile range)

Supported by: Eli Lilly Ltd, Novo Nordisk Ltd

805

Factors associated with HbA_{1c} and weight changes at 6 months in the Association of British Clinical Diabetologists (ABCD) nationwide exenatide and liraglutide audit
C. Walton[1], R.E.J. Ryder[2], M.L. Cull[2], A.P. Mills[2], K.Y. Thong[2];
[1]Diabetes, Hull Royal Infirmary, [2]Diabetes, City Hospital, Birmingham, UK.

Background and aims: Treatment with GLP-1 agonists in type 2 diabetes has the advantage of weight loss but they are not effective in every patient. Factors that help predict response to treatment is needed. ABCD conducted two nationwide audits on exenatide and liraglutide based on real clinical practice.