

## **Response of HbA1c and weight against time in the Association of British Clinical Diabetologists (ABCD) nationwide exenatide and liraglutide audits**

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### **Introduction**

ABCD conducted two nationwide audits of GLP-1 agonist treatment: exenatide (completed) and liraglutide (ongoing). HbA1c and weight effects with time were examined for both agents.

### **Methods**

126 and 65 centres across UK submitted anonymised data on 6717 and 3010 patients started on exenatide and liraglutide, respectively. On-treatment HbA1c and weight results up to 24 months were examined. HbA1c and weight changes of patients with complete data at baseline, 3 and 6 months (Model 1), and baseline, 3, 6 and 12 months (Model 2), were compared using a General Linear Model.

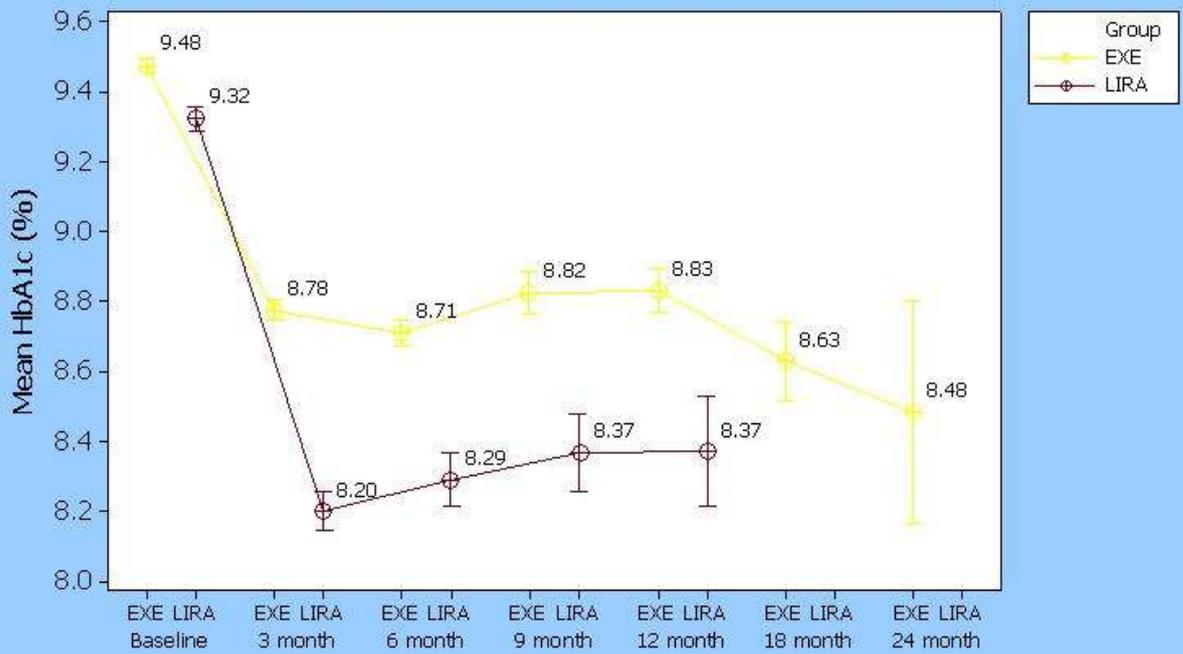
### **Results**

Combined baseline characteristics were 54.5% male, Caucasian 91.1%, mean(SD) age 55.0(10.8) years, HbA1c 9.41(1.71)%, weight 112.8(23.3) kg, BMI 39.4(7.7) kg/m<sup>2</sup> and median(interquartile range) diabetes duration 9(5-13) years. Model 1 had (exenatide/liraglutide) 1606/215 patients with HbA1c data and 1483/254 patients with weight data. Model 2 (Figures 3 and 4) had 584/31 and 481/30 patients with HbA1c and weight data. In Model 1, exenatide patients achieved significant initial HbA1c change from baseline to 3 months, mean (SE) -0.70(0.04)% (p<0.001) but not subsequently from 3 to 6 months -0.08(0.04)% (p=0.108). Similarly, liraglutide patients achieved corresponding changes of -0.87(0.09)% (p<0.001) and +0.04(0.09)% (p=0.911). In contrast, weight continued to reduce; -4.8(0.1) kg (baseline to 3 months) and -2.2(0.1) kg (3 months to 6 months) for exenatide, and -2.6(0.3) kg and -1.0(0.3) kg for liraglutide (p<0.001 all intervals). Model 2 showed continued weight reduction until 12 months in both audits although this was not statistically significant for liraglutide. This may have been due to a small sample size. HbA1c and weight findings were similar after excluding patients who also started insulin.

### **Conclusions**

In patients continuing exenatide and liraglutide in the audits, HbA1c reduction occurred primarily in the first 3 months after treatment but weight reduction was progressive towards 12 months.

Bars are One Standard Error from the Mean



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