

Combined liraglutide-insulin therapy is associated with metabolic improvement and insulin dose reduction in commonly prescribed insulin regimens

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Background

There is limited clinical trial data available on combined insulin-liraglutide therapy. Liraglutide added to insulin is not licensed except that insulin detemir may be added.

ABCD Nationwide Liraglutide Audit, UK

This initiative (2009-2014, ongoing) collates data obtained as part of standard care (including insulin co-prescription information) on UK patients treated with liraglutide.

	Liraglutide audit	Combined clinical trials
N	5840	2700
BMI (kg/m ²)	38.8±2.0	31.0
HbA1c (%)	9.4±1.7	8.5

Aim

To evaluate efficacy and safety of liraglutide added to commonly prescribed real-world insulin regimens.

Method

- Data obtained from the ABCD liraglutide audit
- Descriptive statistics
- Patients categorised according to insulin regime at liraglutide initiation: 0=none, 1=basal, 2=basal bolus, 3=biphasic.
- Changes in HbA1c, BMI, weight and insulin dose at follow-up were calculated.
- Exclusions: missing baseline or follow-up data; interval between relevant parameter <6 weeks or >1 year.

Results

Fig. 1. Pie chart: breakdown of patients by insulin regime at liraglutide initiation by number of patients (%)

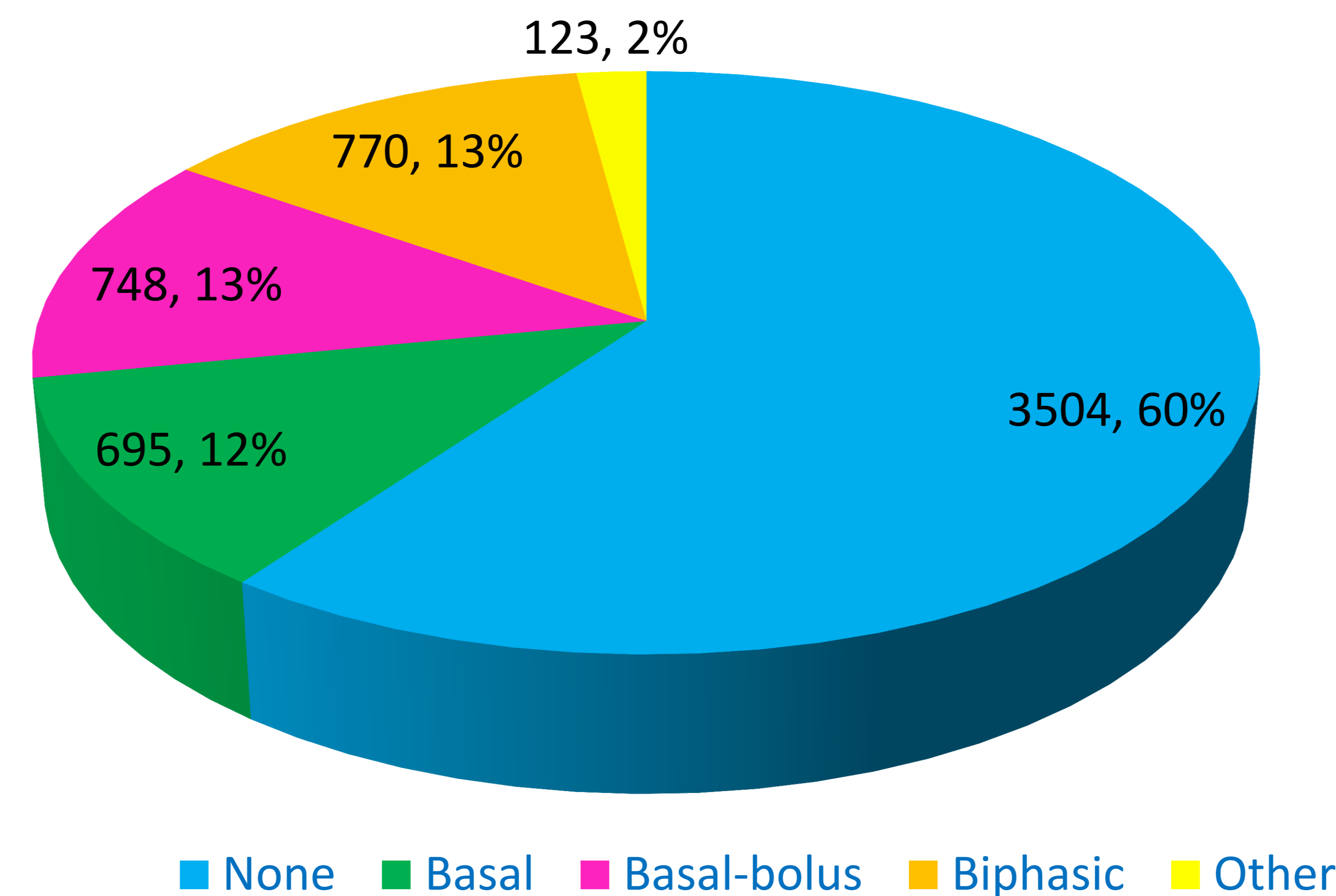
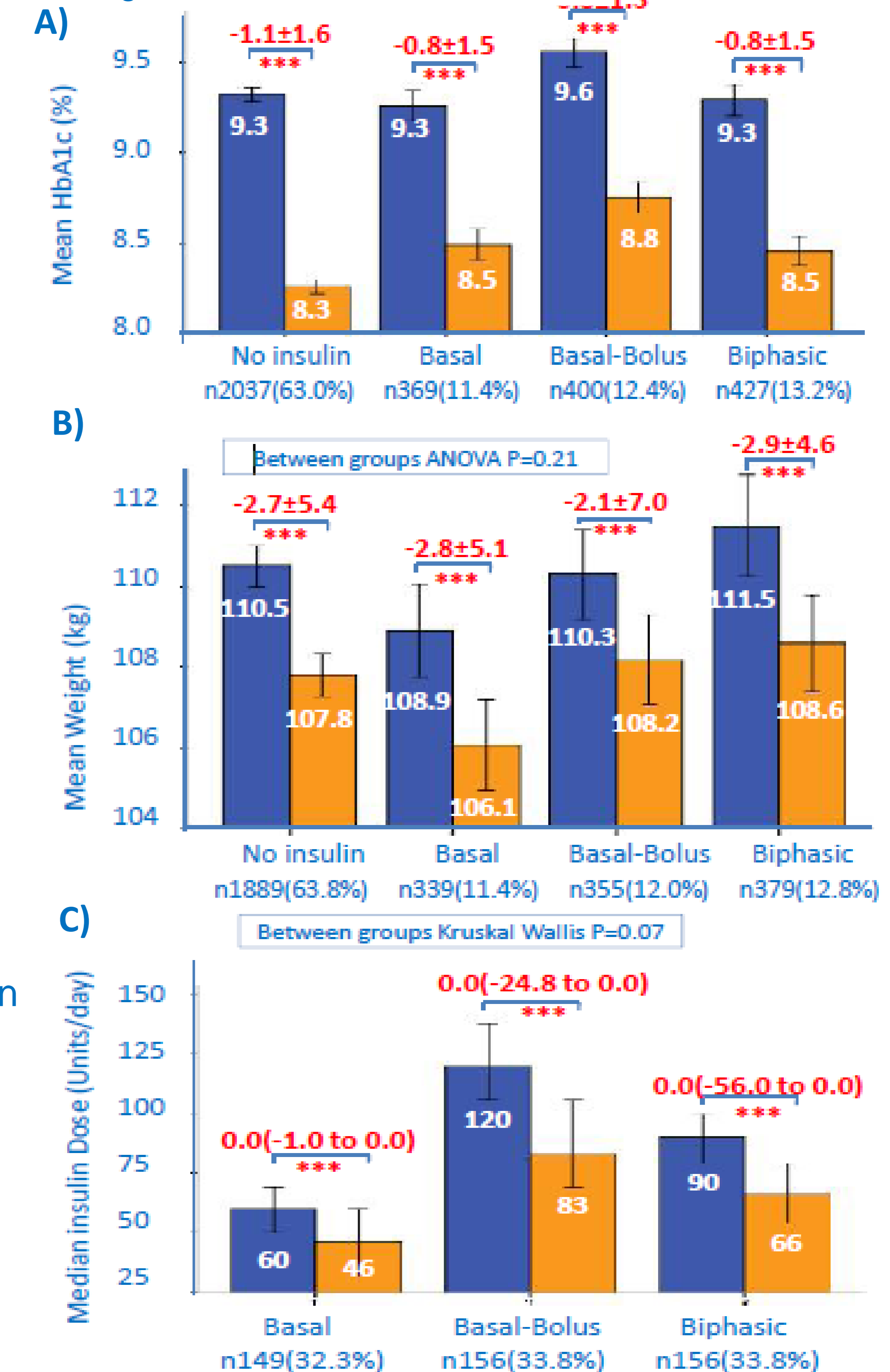


Table 1. Baseline characteristics by insulin regime at liraglutide initiation

N(%)	Basal 695 (12%)	Basal-bolus 748 (13%)	Biphasic 770 (13%)	P-Value
Male (%)	53.7	51.0	51.6	0.54
Caucasian (%)	87.5	85.0	85.9	0.51
Age	55.2±12.0	54.6±11.8	57.3±10.6	<0.0001
HbA1c (%)	9.3±1.7	9.6±1.7	9.4±1.8	0.002
BMI (kg/m ²)	38.5±6.9	38.7±7.4	39.3±7.2	0.10
Weight (kg)	109.5±21.9	110.7±22.0	111.2±23.6	0.39
Insulin dose (u)	60.0(30.0-116.0)	120.0(74.5-201.5)	90.0(56.0-136.0)	<0.0001

Fig. 2A-C. Clustered bar charts



Conclusion

- Combined liraglutide-insulin therapy:
- is frequently encountered in real-world UK clinical practice
 - has comparable efficacy to liraglutide alone
 - allows considerable reduction in total daily insulin dose.