Sandwell and West Birmingham Hospitals NHS
NHS Trust

Association of British Clinical Diabetologists

The Association of British Clinical Diabetologists (ABCD) nationwide exenatide and liraglutide audits

R.E.J. Ryder[1] • K.Y. Thong[1] • M.L. Cull[1] • A.P. Mills[1] • C. Walton[2] • ABCD nationwide exenatide and liraglutide audit contributors;
[1]Diabetes, City Hospital, Birmingham, UK • [2]Diabetes, Hull Royal Infirmary, Hull, UK

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Aims

- To compare use and efficacy of exenatide and liraglutide in two large scale nationwide audits of real clinical practice.

The ABCD nationwide exenatide and liraglutide audits

	Exenatide audit	Liraglutide audit (ongoing)
Dates of data	2007–2009	2009–2010
Centres	126	64
Contributors	315	210
Patients	6717	3010

- Collected anonymised data of patients treated with exenatide or liraglutide in the UK
  - Patient demographics
  - Diabetes medications
  - HbA_{1c}, weight
  - Lipids
  - Blood pressure
  - Adverse events and GLP-1 discontinuation.

Methods

- Comparisons of baseline characteristics, diabetes medication use and HbA_{1c} and weight changes using Student's t-test, Mann-Whitney U test and Chi Square test.
- Excluded liraglutide patients previously on exenatide.
- HbA_{1c} and weight results taken at 6 months (± 6 weeks).
- Blood pressure and lipid changes also analysed.

Results

Baseline characteristics

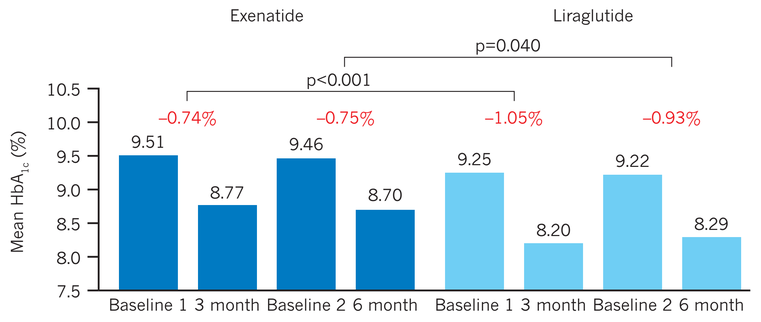
	Exenatide audit (n=6717)	Liraglutide audit (n=2303)	p value
Male (%)	54.9	54.1	0.491
Caucasian (%)	84.4	90.4	<0.001
Age (years)	54.9 (10.6)	55.4 (11.2)	0.033
Diabetes duration (years)	8 (5–13)	9 (5–13)	0.424
HbA_{1c} (%)	9.47 (1.69)	9.32 (1.72)	0.001
Weight (kg)	113.8 (23.4)	111.1 (23.0)	<0.001
BMI (kg/m^2)	39.8 (8.0)	39.1 (7.5)	<0.001
Single oral therapy (%)	12.7	12.0	0.371
Dual oral therapy (%)	28.1	28.1	0.969
≥3 oral therapy (%)	15.6	17.9	0.012
On insulin (%)	33.9	39.8	<0.001

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

Baseline diabetes treatment use and discontinuation

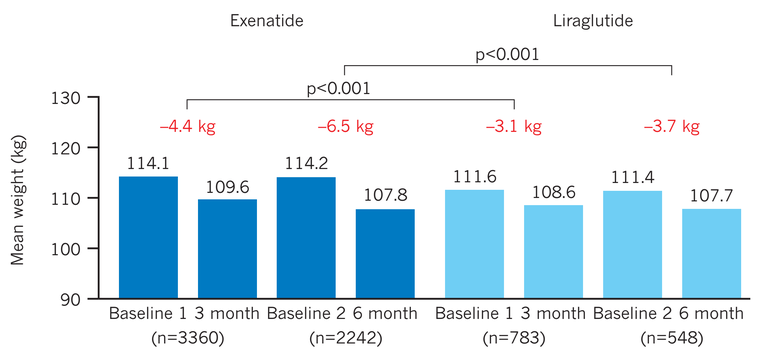
	Exenatide audit	Liraglutide audit
Metformin (%)	84.0 (0.9)	82.7 (0.7)
Sulphonylurea (%)	49.5 (6.5)	42.8 (5.3)
Thiazolidinedione (%)	27.1 (13.4)	20.5 (7.5)
Meglitinide (%)	2.0 (0.6)	1.0 (0.2)
Acarbose (%)	0.9 (0.3)	0.7 (0.3)
DPP-IV-inhibitor (%)	2.2 (1.4)	10.9 (9.3)
Exenatide (%)	–	21.9 (21.9)
Insulin (%)	33.9 (8.1)	39.6 (2.6)

HbA_{1c} changes at 3 and 6 months: exenatide and liraglutide



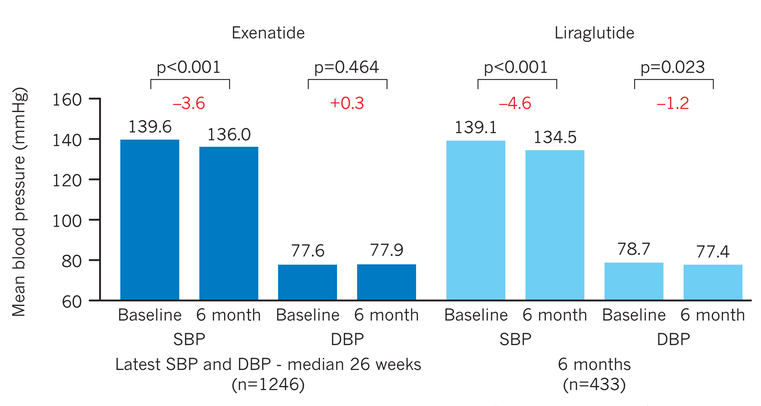
Results rounded to 2 decimal points

Weight changes at 3 and 6 months: exenatide and liraglutide



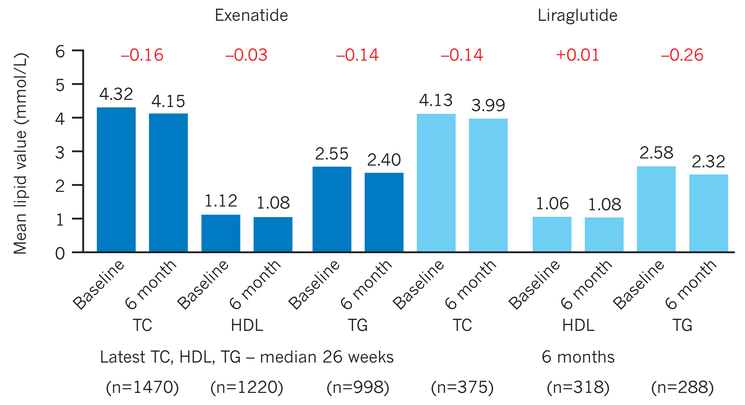
Results rounded to 1 decimal point

Blood pressure: exenatide and liraglutide



Results rounded to 1 decimal point

Lipids: exenatide and liraglutide



Results rounded to 2 decimal points

Conclusions

- 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 HbA_{1c} reduction but lesser weight reduction in the liraglutide audit as compared with the exenatide audit.
- However, there were lesser insulin and thiazolidinedione discontinuation but greater DPP–IV (dipeptidyl peptidase-IV) 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.

Acknowledgment

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