



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

Ken Thong¹, Bob Ryder¹,
on behalf of the ABCD nationwide exenatide and
liraglutide audits contributors

¹Diabetes, City Hospital, Birmingham

Australian Diabetes Society ASM
Perth 31 Aug 2011

Disclosure



- The ABCD nationwide exenatide audit and nationwide liraglutide audit are supported by grants from Eli Lilly Ltd and Novo Nordisk Ltd
- The audits were independently initiated and performed by ABCD, and the authors remained independent in the analysis and writing of this report

Disclosure



- Ken Thong has received educational sponsorship from Eli Lilly, Novo Nordisk, Sanofi-Aventis and Takeda
- Bob Ryder has received speaker fees from Eli Lilly, consultancy fees from Novo Nordisk, and educational sponsorship from Sanofi-Aventis, Takeda and GlaxoSmithKline

Introduction



- GLP-1 agonists can improve glycaemic control and promote weight loss in patients with type 2 diabetes

Aim



- To characterise the pattern of HbA1c and weight reduction with GLP-1 agonists treatment over time
 - *in real life clinical practice*

The ABCD nationwide exenatide and liraglutide audits

- The Association of British Clinical Diabetologists (ABCD) is the national diabetes specialist society in the UK
- ABCD conducted two nationwide audits of GLP-1 agonists to evaluate the safety and efficacy of these agents in clinical practice



The ABCD nationwide exenatide and liraglutide audits

- Diabetes centres across UK were invited to send data on patients started on exenatide and liraglutide
- Data was anonymised and sent electronically to ABCD
- Data collected:
 - Patient demographics – age, sex, ethnicity
 - Diabetes treatment
 - HbA1c, weight
 - Blood pressure, lipids
 - GLP-1 discontinuation
 - Side effects/adverse events



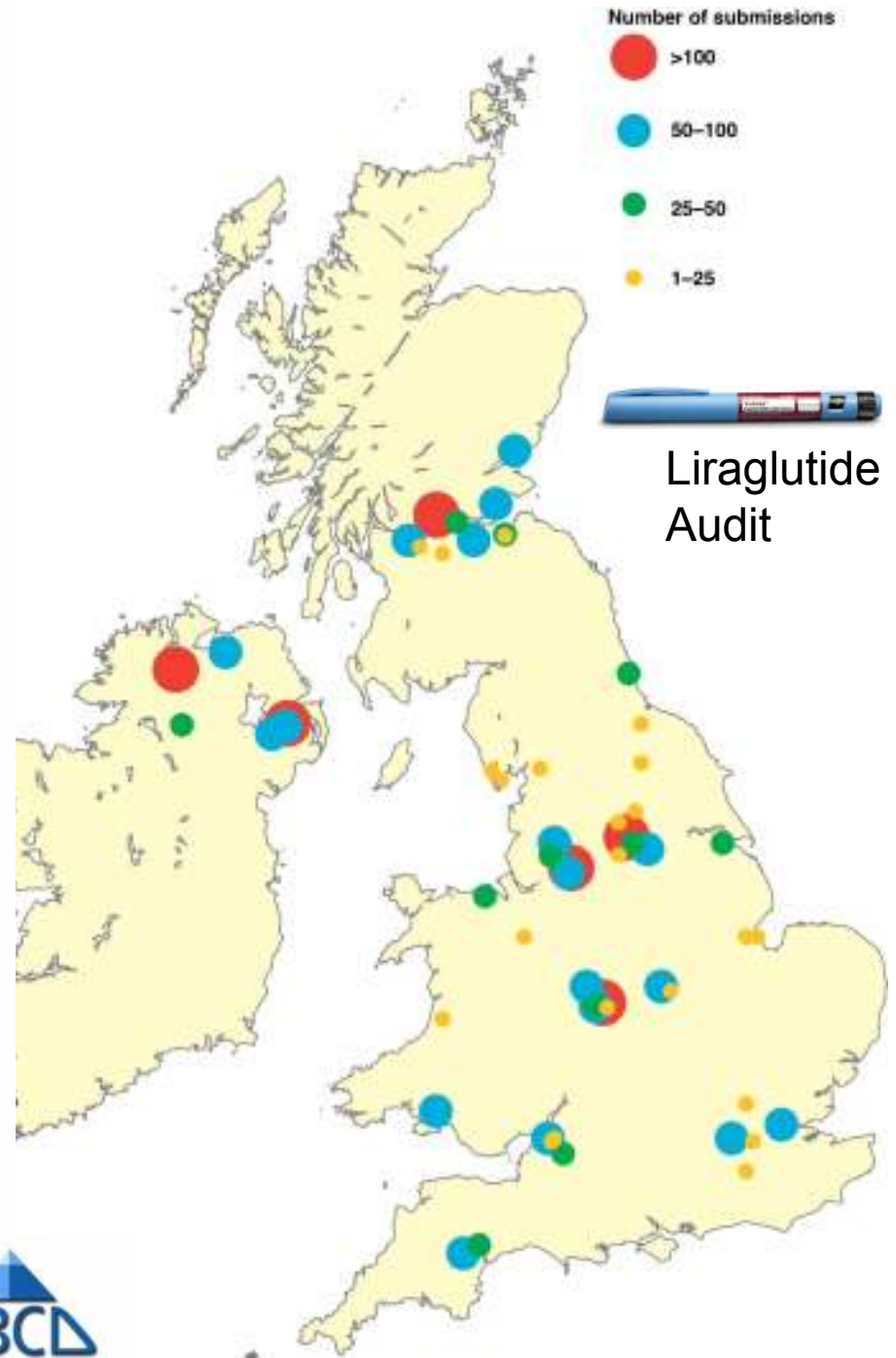
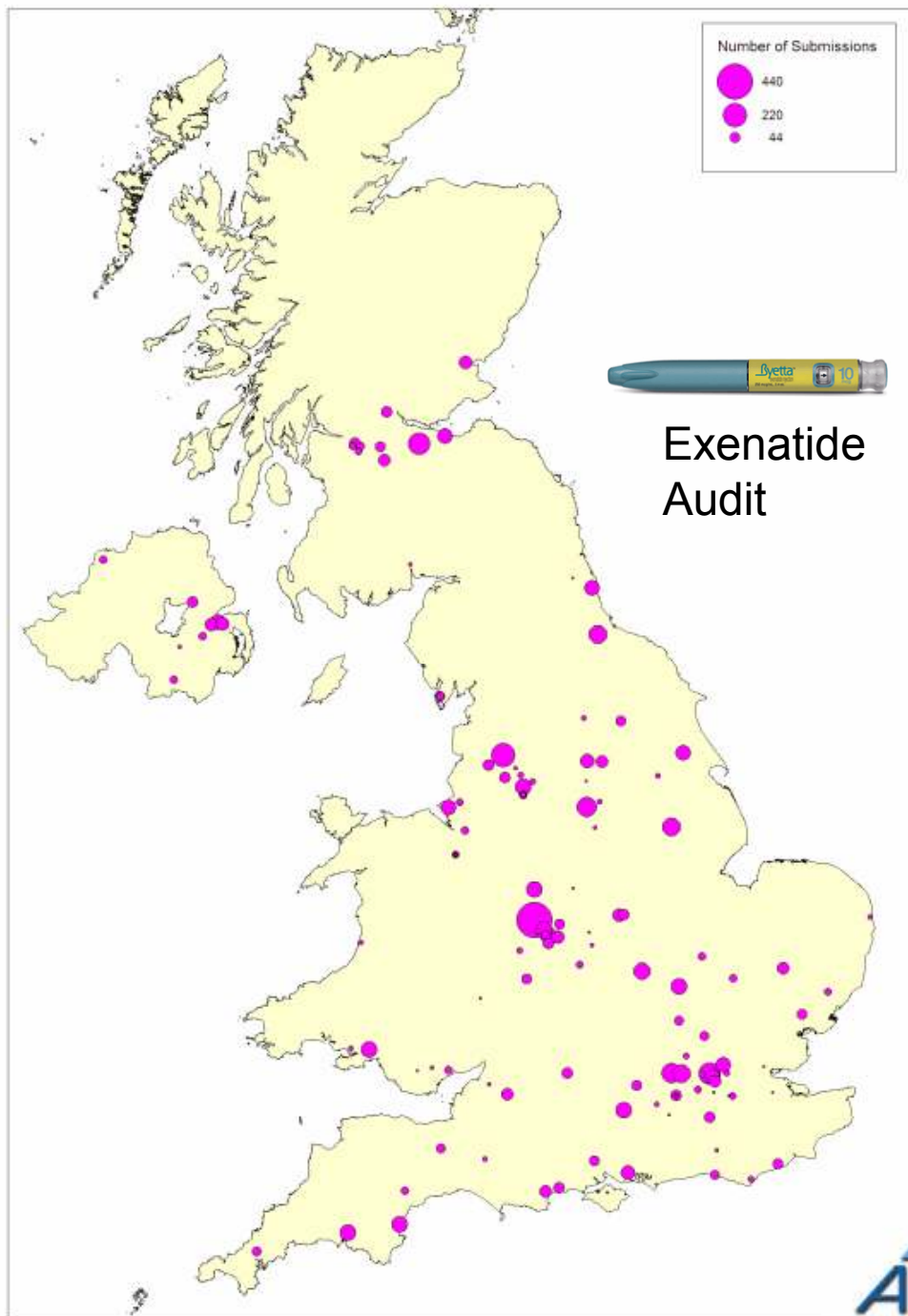
The ABCD nationwide exenatide and liraglutide audits

- Exenatide audit

- 2007-2009
- 126 centres
- 315 contributors
- 6717 patients

- Liraglutide audit

- 2009-ongoing
- *64 centres*
- *210 contributors*
- *3010 patients*



Methods



- HbA1c and weight data grouped at 3, 6, 9, 12, 18 and 24 months after exenatide and liraglutide initiation
- General Linear Model was used to assess the significance of HbA1c and weight changes among patients who had data at ***all*** the time points of:
 - 1) Baseline, 3 months, 6 months
 - 2) Baseline, 3 months, 6 months, 12 months
 - 3) Baseline, 6 months, 12 months, 18 months (exenatide only)

Results

Baseline characteristics



	Exenatide Audit	Liraglutide Audit	p value
n	6717	3010	
Male (%)	54.9	53.5	0.203
Caucasian (%)	84.4	89.5	<0.001
Age (yrs)	54.9 (10.6)	55.4 (11.1)	0.037
Diabetes duration (yrs)	8 (5-13)	9 (6-13)	0.007
HbA1c (%)	9.47 (1.69)	9.28 (1.73)	<0.001
Weight (kg)	113.8 (23.4)	110.4 (22.8)	<0.001
BMI (kg/m ²)	39.8 (8.0)	38.9 (7.3)	<0.001
Single oral therapy (%)	12.7	13.9	0.122
Dual oral therapy (%)	28.1	29.3	0.209
≥3 oral therapy (%)	15.6	15.0	0.427
On insulin (%)	33.9	39.8	<0.001

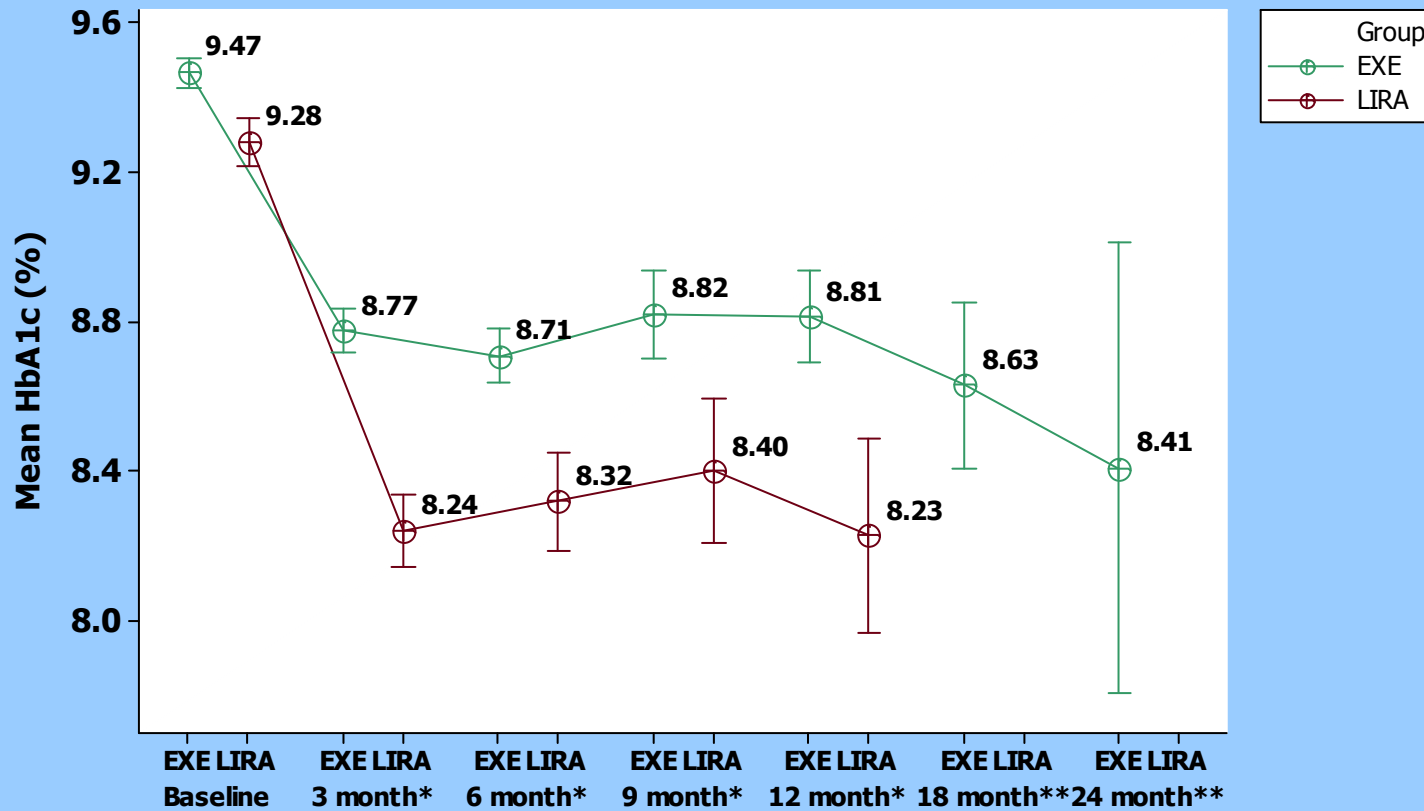
Results with mean (SD) and median diabetes duration (inter-quartile range)

Results for exenatide adapted from Ryder et al. Pract Diab Int 2010; 27:352-357

HbA1c changes with time: exenatide and liraglutide



Bars represent 95% CI for the Mean



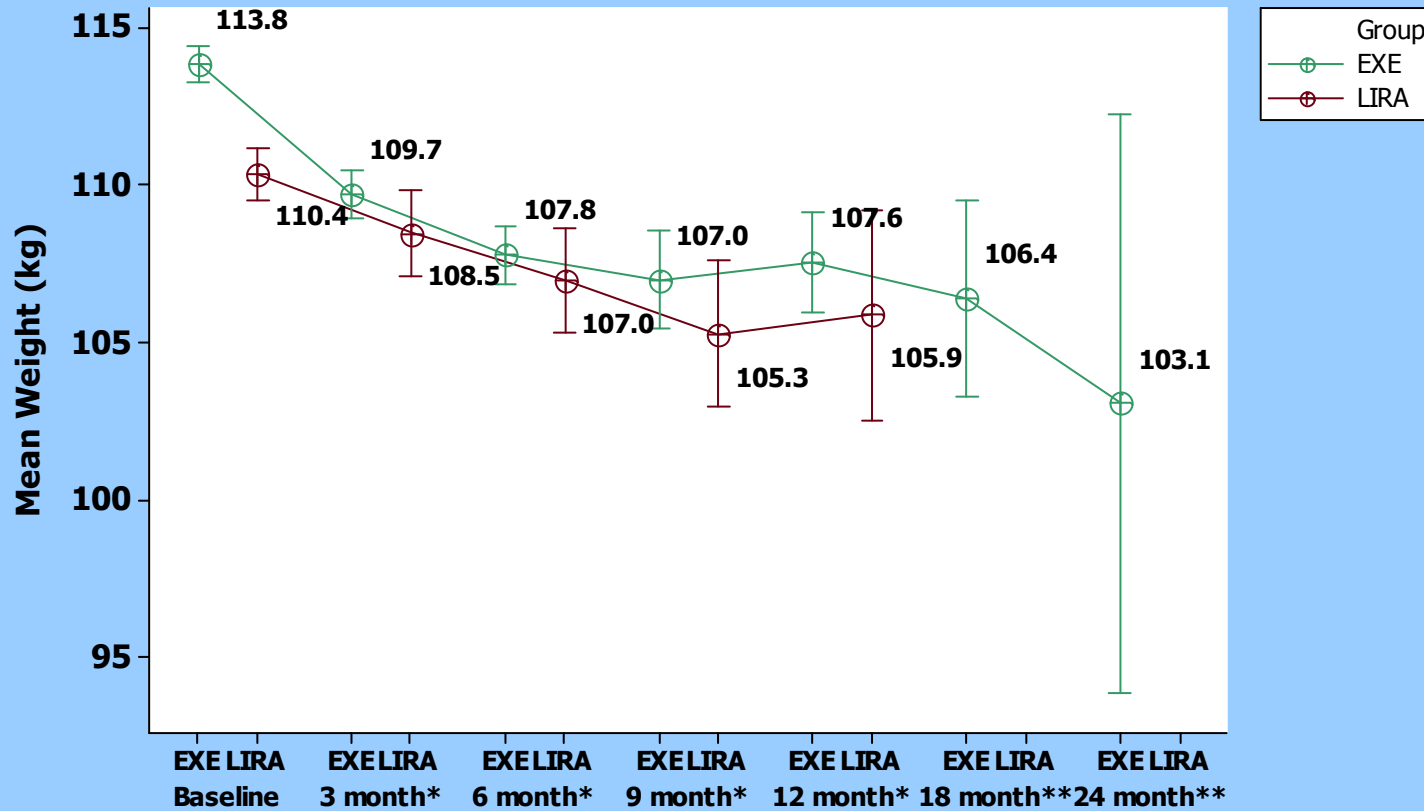
	EXE LIRA Baseline	EXE LIRA 3 month*	EXE LIRA 6 month*	EXE LIRA 9 month*	EXE LIRA 12 month*	EXE LIRA 18 month**	EXE LIRA 24 month**
EXE (n)	6595	3558	2374	978	883	279	38
LIRA (n)	2899	1007	647	301	167		

* ±6 weeks, ** ±3 months

Weight changes with time: exenatide and liraglutide



Bars represent 95% CI for the Mean



	EXE LIRA Baseline	EXELIRA 3 month*	EXELIRA 6 month*	EXELIRA 9 month*	EXE LIRA 12 month*	EXE LIRA 18 month**	EXE LIRA 24 month**
EXE (n)	6508	3396	2264	838	762	206	37
LIRA (n)	2889	998	681	306	169		

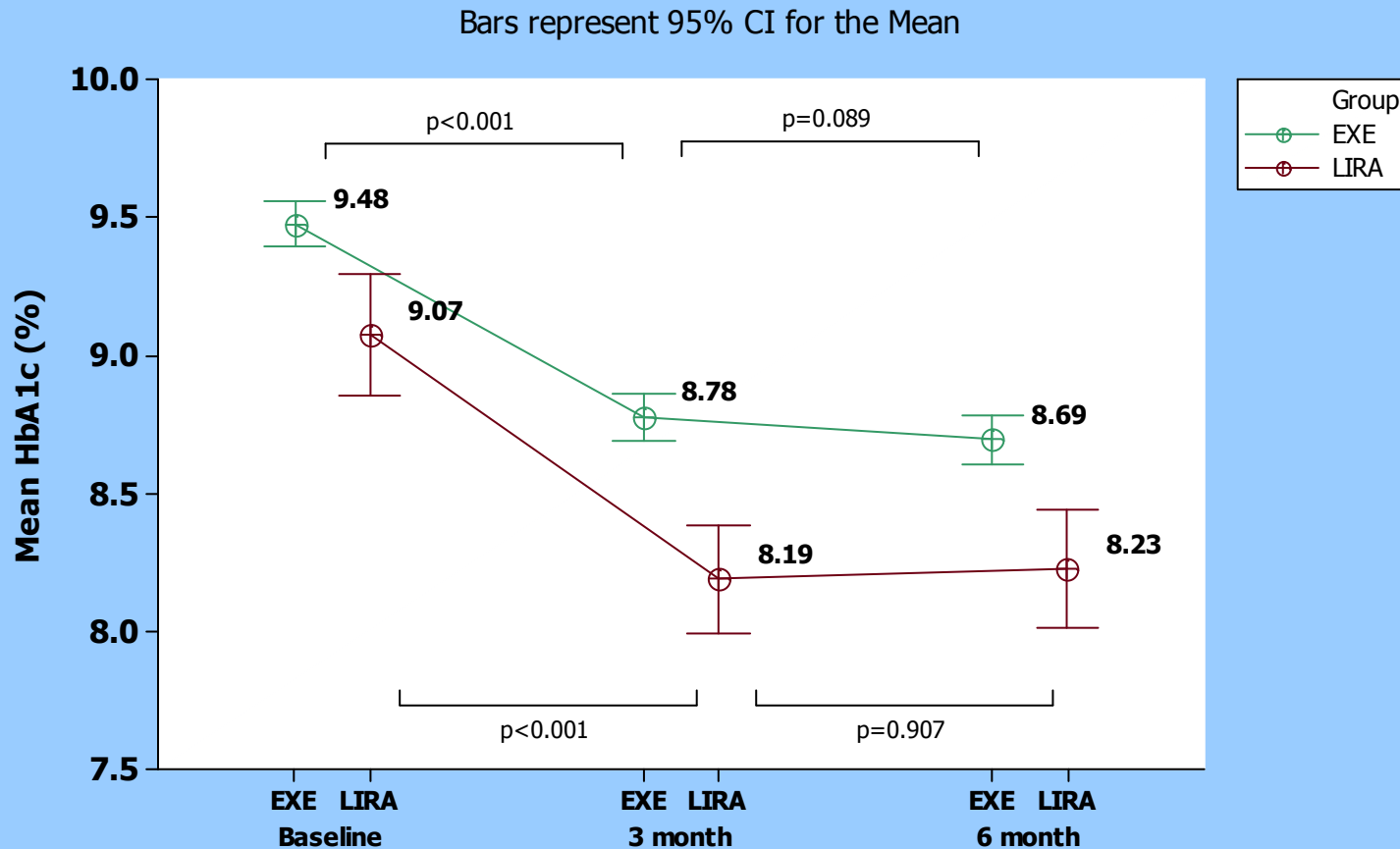
* ±6 weeks, ** ±3 months

Methods

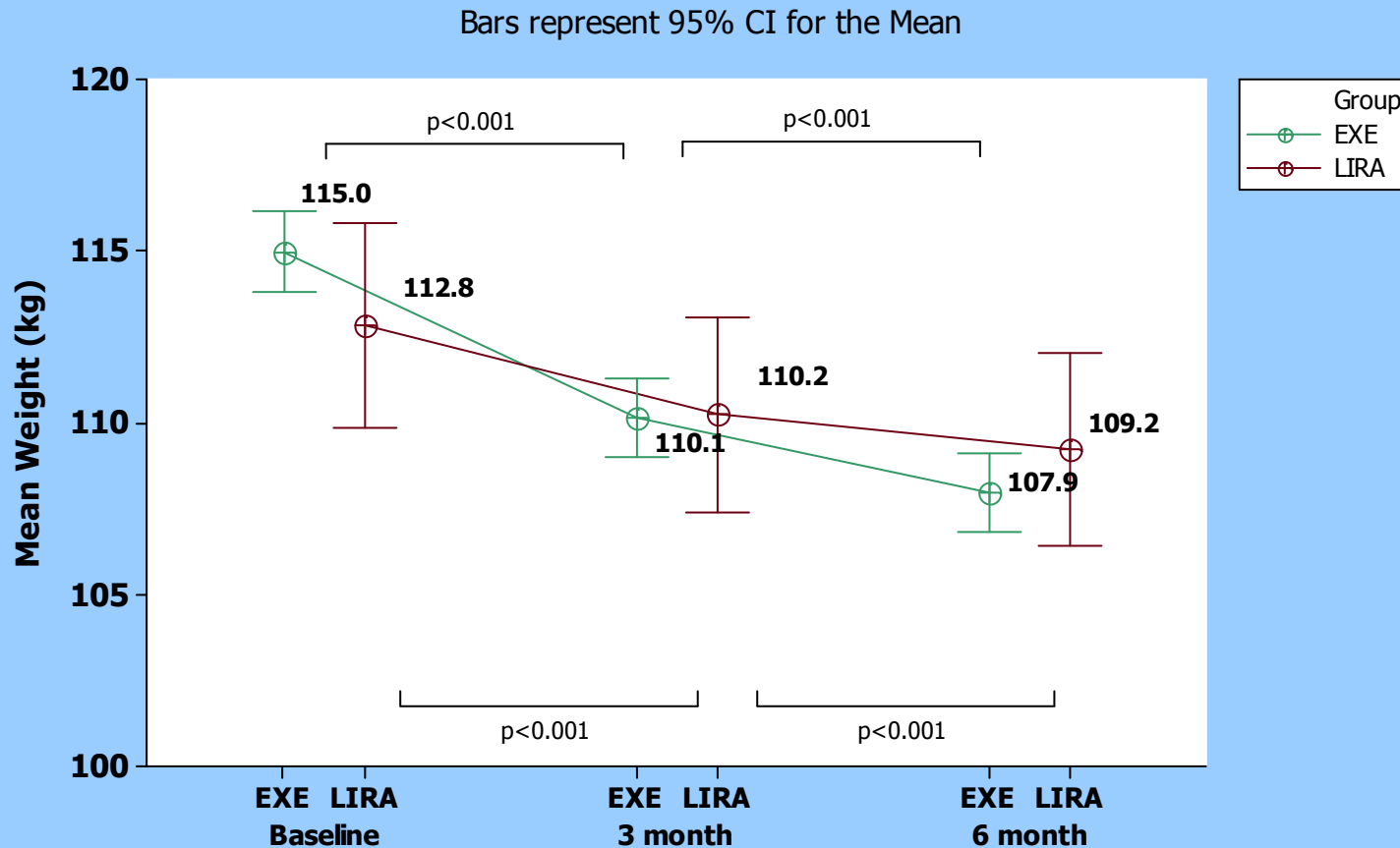


- HbA1c and weight data grouped at 3, 6, 9, 12, 18 and 24 months after exenatide and liraglutide initiation
- General Linear Model was used to assess the significance of HbA1c and weight changes among patients who had data at ***all*** the time points of:
 - 1) Baseline, 3 months, 6 months
 - 2) Baseline, 3 months, 6 months, 12 months
 - 3) Baseline, 6 months, 12 months, 18 months (exenatide only)

GLM of 1609 exenatide patients 217 liraglutide patients with HbA1c data at baseline, 3 months and 6 months



GLM of 1486 exenatide patients 256 liraglutide patients with Weight data at baseline, 3 months and 6 months

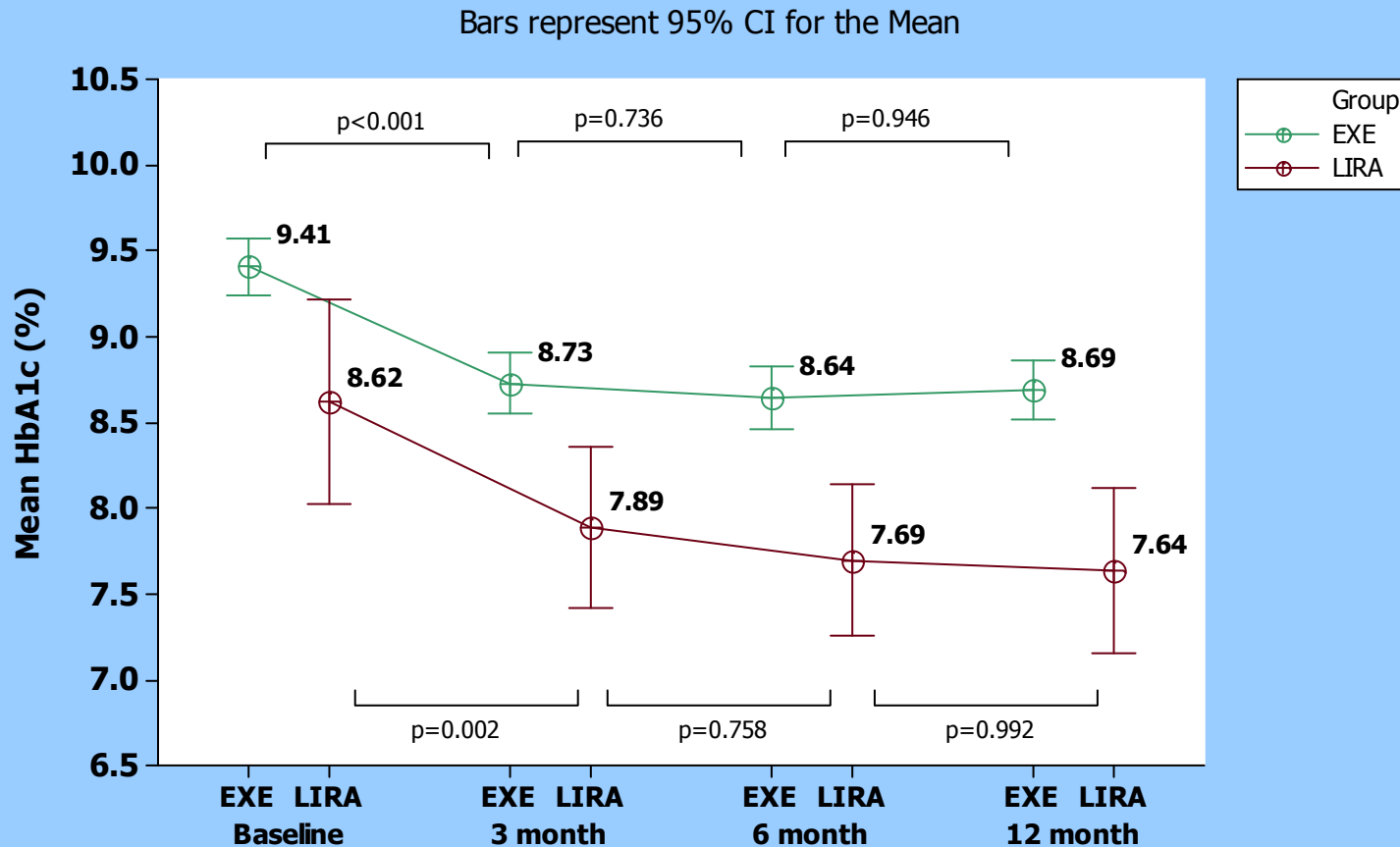


Methods

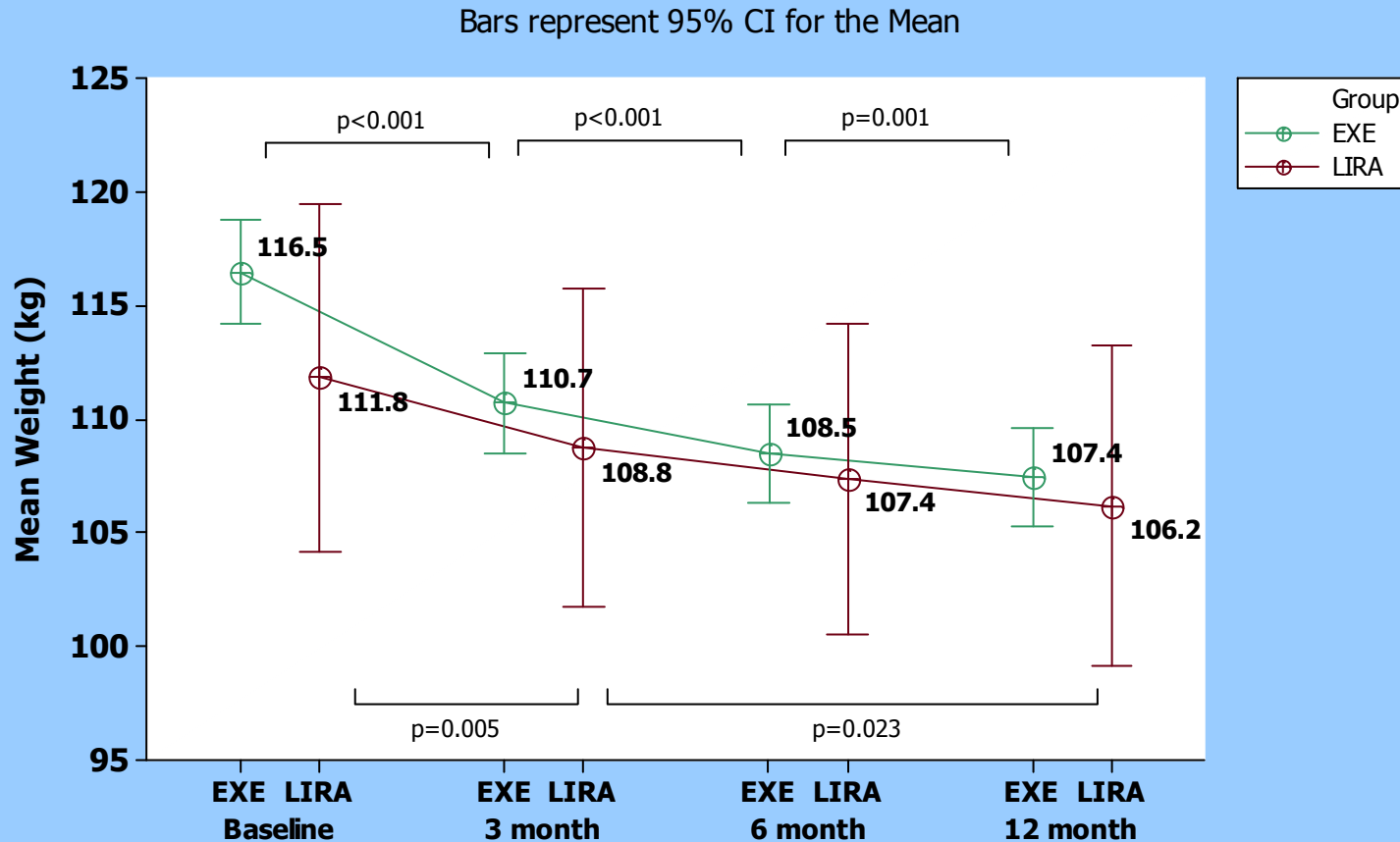


- HbA1c and weight data grouped at 3, 6, 9, 12, 18 and 24 months after exenatide and liraglutide initiation
- General Linear Model was used to assess the significance of HbA1c and weight changes among patients who had data at ***all*** the time points of:
 - 1) Baseline, 3 months, 6 months
 - 2) Baseline, 3 months, 6 months, 12 months
 - 3) Baseline, 6 months, 12 months, 18 months (exenatide only)

GLM of 420 exenatide patients 36 liraglutide patients with HbA1c data at baseline, 3 months, 6 months and 12 months



GLM of 369 exenatide patients 38 liraglutide patients with Weight data at baseline, 3 months, 6 months and 12 months

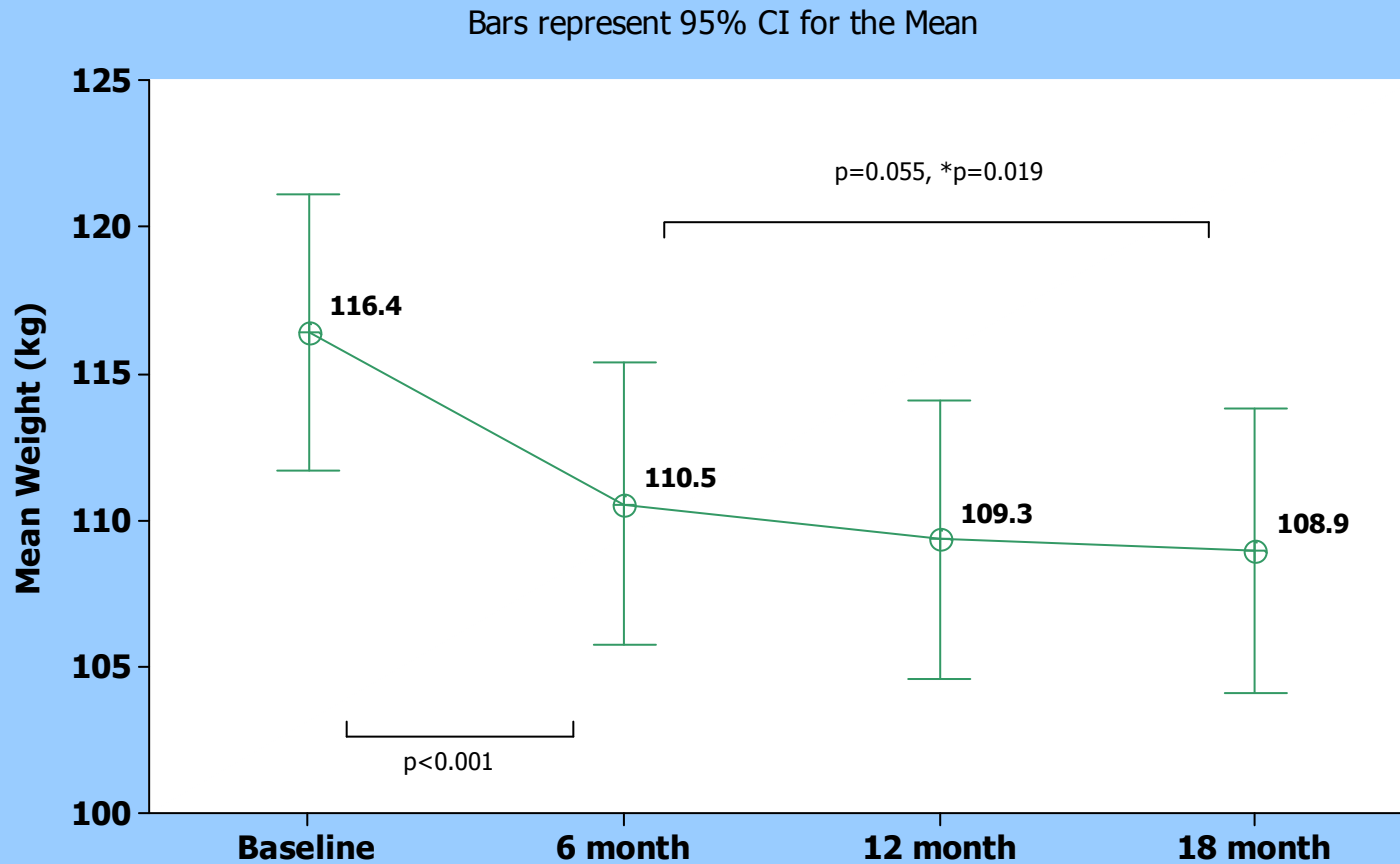


Methods



- HbA1c and weight data grouped at 3, 6, 9, 12, 18 and 24 months after exenatide and liraglutide initiation
- General Linear Model was used to assess the significance of HbA1c and weight changes among patients who had data at ***all*** the time points of:
 - 1) Baseline, 3 months, 6 months
 - 2) Baseline, 3 months, 6 months, 12 months
 - 3) Baseline, 6 months, 12 months, 18 months (exenatide only)

GLM of 101 exenatide patients with Weight data at baseline, 6 months, 12 months and 18 months



**after excluding patients adding insulin to exenatide*

Conclusions

- In patients continuing exenatide and liraglutide in clinical practice,
 - HbA1c reduction occurred early within the first few months of treatment and then plateauxs,
 - Weight reduction was progressive up to 12 or 18 months.
- The patterns of HbA1c and weight reduction with both GLP-1 agents were similar
- Our data suggests that the effectiveness of GLP-1 agonists as glucose-lowering therapies may be judged early despite further weight loss subsequently.

ABCD nationwide exenatide audit contributors

The following are those whom we know about.

ABCD nationwide exenatide audit project steering group: Ryder REJ, Walton C, Rowles S, Adamson K, Dove D, Thozhukat S

ABCD nationwide exenatide audit – initial setup, maintenance and nationwide analysis: Ryder REJ, Walton C, Winocour P, Cull ML, Jose B, Sukumar N, Mills AP, Sands K, Shafiq W, Rigby A, Thozhukat S, Thong K. Statistician: Blann A.

Addenbrookes Hospital: Adler A, Evans M, Simmons D, O'Rahilly S, Coll T, Farooqi S, Park A. **Altnagelvin Area Hospital:** Lindsay J, Kelly J. **Antrim Area Hospital:** Kennedy A, Rooney D. **Barnsley Hospital:** Uchegbu E. **Basildon University Hospital:** Mulcahy M, Krishnan L. **Basingstoke and North Hampshire NHS Foundation Trust:** Guy R, Turner B, Akester K, Lewis G, Harrison O, Tombling S, Lloyd G, Hughes C, Lowe C. **Bedford Hospital:** Morrish N, Melvin A, Pledger J, Barron R. **Bedfordshire & Hertfordshire PGMS, Luton:** Rehman T, Sinclair A. **Belfast City Hospital:** Henry W. **Bolton Diabetes Centre:** Palin S, Kenz R. **Bristol Royal Infirmary:** Raghavan R, Phillips S, Bradley K. **Bronglais Hospital:** Kotonya C, Premawardhana LDKE. **Chesterfield Royal Hospital:** Mohammad M, Robinson RTCE, MacInerney RM. **Chorley & South Ribble Hospital:** Rajbhandari SM, Acharya S. **City Hospital, Birmingham:** Ryder REJ, Basu A, De P, Lee BC, Jose B, Sukumar N, McAloon CJ, Blann A, Mills AP, Cull ML, Lee A, Rawcliffe C, Ryder B, Burbridge W, Irwin S, Cutler J, Zzizinger A, Mehrali T, Bedi T, Stevenson-Mort J. **CMMC Foundation Trust, Manchester:** Jinadev P, Watts R, Abul-Ainina S, Salahuddin S. **Colchester General Hospital:** Bodmer C. **Conquest Hospital, St Leonards on Sea:** Dashora U, Castro E. **Countess of Chester:** Shulwalia R., Ewins D, Goenka N. **County Hospital, Hereford:** Lloyd J. **Craigavon Area Hospital, Co Armagh:** Ritchie C. **Daisy Hill hospital, Newry:** Adil MM. **Derriford Hospital, Plymouth:** English P, Viney T, Laird O, Rigley R, Babu A, Blackmore M. **Dumfries & Galloway Royal Infirmary:** Bell E., Green F, Banerjee S. **East Surrey Hospital, Redhill:** Foster K, Natarajan G. **Eastbourne District Diabetes Centre:** Bending J, Afolayan J, Sheppard P. **Fairfield Hospital, Bury:** Rowles S, Smithurst HJ. **Falkirk and District Royal Infirmary:** Kelly C, Peden N, Currie J., Buchanan L. **Frimley Park Hospital:** Eliwe MH, Bingham E, Tringham JR. **Furness General, Barrow In Furness:** Chuni P, Hay C, Narayan S, Krishnan S. **Gartnavel General Hospital:** Small M, Jones G, McGrane D, Sainsbury G. **George Eliot Hospital Nuneaton:** Shaikh S, Patel V. **Good Hope Hospital, Sutton Coldfield:** Jones SL, Milles JJ, Griffiths U, Colloby M, Harold C, Rangan S, Morrison J. **Glasgow Royal Infirmary, Fisher M, McGrane D. Great Western, Swindon:** Govindan J, Price P, Ahmed S, Gardner A. **Guys & St Thomas Hospital, London:** Brackenbridge A, Reid A, Piper-Smith J, Preston J. **Hammersmith and Charing Cross:** Field BCT, Dornhorst A. **Harrogate Hospital:** Hammond P, Thirumurugan E., **Heartlands Hospital, Birmingham:** John R, Patel M, Ulnaf S, Begum S. **Hillingdon Hospital, Uxbridge:** Edwards M, Doolittle H, Currie A, O'Sullivan S, Lillystone R. **Hinchinbrooke Hospital, Huntingdon:** Mathews AA. **Hull Royal Infirmary:** Walton C, Ng B, Kumar BK, Bosomworth A. **Ipswich Hospital:** Srinath A, Parkinson C, Fowler D, Morris D, Rayman G, Scott A. **James Paget Hospital, Great Yarmouth:** Grinnell F, Huston N, MacMillian C. **King's College Hospital, London:** Lee M, Amiel S, Nathan Y. **Kingston Hospital:** Oldfield M. **Lagan Valley Hospital, Lisburn:** Au S, Turtle EJ. **Leicester General Hospital:** Tarigopula G, Braithwaite J, Kong M-F, Jackson S, Gregory R. **Leicester Royal Infirmary:** Nisal K, Gallagher A, Davies MJ, McNally PG, Lawrence IG. **Lincoln County:** Sands K. **London Medical:** King L, Abraham R, Tomeu J. **Mayday University Hospital, Croydon:** Prentice M. **Medway Maritime Hospital, Gillingham:** Scobie IN. **Monklands Hospital, Airdrie:** Sandeep T. **Morrison Hospital, Swansea:** Stephens JW. **Newcastle General:** Taylor R. **New Cross Hospital, Wolverhampton:** Singh BM, Nayak UA, Govindan J, Kalupahana DN. **Newham University Hospital, London:** Gelding S, Rayanagoudar G.. **Ninewells, Dundee:** Petrie J, Al-Dahlaki M. **Nobles Hospital, Isle of Man:** Khan EG, Krishnan A, Clark J, Thondam S. **North Manchester General Hospital:** Rathur H, Savage M, Wiles P, Prakash P. **North Tees & Hartlepool Trust:** MacLeod J, Anthony S, Mehaffy J. **North Wales NHS Trust, Wrexham:** White H. **Northampton General Hospital:** Htike ZZ, Kilvert A, Mtemererwa B, Nisal K, Fox C, Rippin J. **Bromley PCT:** Casiglia D. **Pinderfields General, Wakefield:** Nagi DK. **Poole Hospital NHS Foundation Trust:** Masding M, Osborne K, Wallace P. **PRH, Haywards Heath:** Smith A, Mabrook J. **Prince Philip Hospital, Llanelli:** Williams M, Aggarwal N. **Princess Royal, Bromley:** Lulsegged A. **Queen Alexandra, Portsmouth:** Cranston I, Darzy K. **Queen Elizabeth II Hospital, Welwyn Garden City:** Winocour PH. **Queen's Hospital, Burton:** Benn J. **Raigmore Hospital, Inverness:** McLaren L. **Rotherham General:** Franke B. **Royal Berkshire Hospital, Reading:** Simpson H, Reddy N, Barber T. **Royal Blackburn Hospital:** Astin J, Faina J, Whalley G, Ramtoola S, Jones G, Wilkinson R. **Royal Bournemouth:** Richards J, Richardson T. **Royal Cornwall Hospital, Trillick:** Fox T., Foote J, Browne D, Pinkney J. **Royal Devon & Exeter:** Bowman P, Hattersley A, Vadiya B. **Royal Glamorgan Hospital, Llantrisant:** Evans P. **Royal Gwent Hospital, Newport:** Obuobie K. **Royal Infirmary of Edinburgh:** Jaap A, Noh R, Richards M. **Royal Liverpool University Hospital:** Vora J, Brake J. **Royal Oldham Hospital:** Mishra BM. **Royal Surrey County Hospital, Guildford:** Hordern V. **Royal United Hospitals, Bath:** Higgs E, Gouni R, Taylor P, Wylie S, Hall B, Hillier N, Neathercote D. **RSCH, Brighton:** Quin J, Robinson N. **Sandwell Hospital, West Bromwich:** Ibrahim H, Robertson D, Davies P, Banerjee P, Li YK, Wong KH, Barker N, Dhallu J, Farell D., R.M. Iqbal. **Scunthorpe General:** Moisey R, Malik M, Dromgoole P, Elmalti A. **Selly Oak Hospital, Birmingham:** Creely S, Gough S, Hanif W. **Sheffield Teaching Hospitals:** Elliott J, Scott A. **Smethwick Health Centre:** Pall N, Harrington J. **South East CHCP, Glasgow:** Carson L-A. **Southampton General Hospital:** Sharp P, Brown B. **Southern General Hospital, Glasgow:** Semple C. **St John's Hospital, Livingston:** Adamson K, Green F. **St Mary's Hospital, Isle of Wight:** Kaklamanou M, Al-Mrayat M. **St Peter's Hospital, Chertsey:** Sennik D, Baxter M, Naqvi S, Suresh D, Miras A. **Staffordshire DGH, Stafford:** Coates P, Daggett P, Green F. **Stirling Royal Infirmary:** Kelly C, Mackenzie A, Peden N. **Bronglais Hospital, Aberystwyth:** Kotonya CA. **Sunderland Royal:** Nayar R, Carey P, Aspray T. **Taunton & Somerset:** Close C, Andrews R, Douek I, Watson J., Lambert P. **Torbay Hospital, Torquay:** Paisey R. **University Hospital Coventry Warwickshire:** Anderson S. **Ulster Hospital, Belfast:** Brennan U, Satti N, Harper R, Harding J. **Victoria Infirmary, Glasgow:** Stewart A. **Warwick Hospital:** Rao RK, Gopinathan KP, Horrocks P. **Watford General Hospital:** Tharakan G, Simpson K. **West Suffolk Hospital, Bury St. Edmunds:** Majeed J, Clark J, Wijenaike N, Gurnell E, Hartley L, Abdullah H, Marath H. **Western General Hospital, Edinburgh:** Aniello L, McKnight JA, Strachen M, Reynolds R, Nyrenda M. **Berkshire East PCT:** Dove D, Aung T. **Whipps Cross University Hospital, London:** Lakhdar A, Manogaraan B. **Wirral Teaching Hospital, Upton Wirral:** Leong KS, Leong K, Lorains J, Joseph P, Leach J, Fenna I. **Whiteabbey Hospital:** Andrews J, Strezlecka A. **Wishaw General, Lanarkshire:** O'Brien I, Davidson E. **Worcestershire Acute Hospitals, Worcester:** Newrick P, Jenkins D. **Wrexham Maelor:** Dixon AN, Munigoti S, Stanaway S, Harvey JN. **Wythenshawe Hospital, Manchester:** Younis N. **Yeovil District Hospital:** Bickerton AST, Crocker M, Down S. **York Hospital:** Jennings P, Hudson N.

Acknowledgment

The ABCD nationwide exenatide audit is an independent audit supported by an unrestricted grant from Eli Lilly Ltd



ABCD nationwide prospective liraglutide audit contributors

The following are those whom we know about.

ABCD nationwide liraglutide audit – initial setup, maintenance and nationwide analysis: Ryder REJ, Walton C, Thong KY, Cull ML, Mills AP. *Statistician: Blann A.*

Addenbrookes Hospital: Simmons D, Bejinariu E. **Altnagelvin Area Hospital:** Lindsay J, O'Kane M, Black N, Moles K, Williams L, Caskey H, McDaid A-M, King L, McIlvor E, Hamilton L, Early R, Morahan S, Giff K, Johnston S. **Basildon University Hospital:** Mulcahy M, Krishnan L. **Belfast City Hospital:** Henry RW, Nugent A, McMullan P. **Benhsam General Hospital:** Narayanan KR. **Birmingham Community Healthcare NHS Trust:** Muralidhara K, Shahid S, Thomas A, Cunningham B, Haughton K. **Bristol General Hospital:** Croxson S. **Bristol Royal Infirmary:** Richards G, Pople J-A, John H, Jones L. **Bronglais Hospital:** Kotonya C, Phillips L, Saunders H, Powell P. **Cape Hill Medical Centre (GP):** Gardner G, Chitnis J, Merali A, Maan P. **Causeway Hospital:** Kassim SB, Ryan MF, Diong KL, Hutchinson K, Glass M, Spiers K, Woodend J, Davidson E. **Chorley Hospital:** Rajbhandari SM, Acharya S. Whittaker J, Caunce K. **City Hospital, Birmingham:** Ryder REJ, Basu A, De P, Lee BC, Thong KY, Blann A, Mills AP, Cull ML, Burbridge W, Irwin S, Cutler J, Zzizinger A, Mehrali T, Guthrie S, Bedi T, Stevenson-Mort J. **Dewsbury Hospital:** Bissell J. **East Lancashire Hospital NHS Trust:** Ramtoola S, Ali A, Jones G, Wilkinson R, Littley M, Mishra M, Glew M, Jostel A, Demssie Y. **East Surrey Hospital, Redhill:** Sennik D, Prajapati C, Chinnasamy E. **Forth Valley Hospital:** Buchanan L, Mackintosh L. **Friarage Hospital, Northallerton:** Owen K, Kamaruddin MS, Leek C. **Furness General Hospital:** Banerjee M, Obale O. **Huddersfield Royal Infirmary:** Moisey R. **Hull Royal Infirmary:** Sugunendran S, Sathyapalan T, Walton C. **King's College Hospital, London:** Vitello S, Hunt K. **Lagan Valley Hospital, Lisburn:** Au S. **Leicester General Hospital:** Tarigopula G, Kong M-F, Gregory R, Jackson S. **Leicester Royal Infirmary:** Htike ZZ. **Monklands Hospital, Airdrie:** Sandeep TC, White A. **New Cross Hospital, Wolverhampton:** Singh BM, Khalid Y, Nayak AU, Katreddy V. **Newham University Hospital, London:** Gelding S, Menon R, Balakumar Y. **Ninewells, Dundee:** George P. **North Tees & Hartlepool Trust:** Robinson M, Dobson M, Presgrave M, Mehaffy J, Roper N, Pye S, Macleod J, Worrall E, Sinclair J, Anthony S, Jones S. **Pendyffryn Medical Group (GP):** Morrison CL. **Pennine Acute Hospitals Trust:** Smith G. **Pilgrim Hospital, Boston:** Jacob K, Htwe N. **Pinderfields General, Wakefield:** D'Costa R. **Pontefract General Infirmary:** Bissell J. **Queen Elizabeth II Hospital & Lister Hospital, Welwyn Garden City:** Winocour PH, Darzy K, Qureshi SA, Ford M, Barker L, O' Donnell L. **Royal Blackburn Hospital:** Ramtoola S, Ali A, Jones G, Wilkinson R, Littley M, Mishra M, Glew M, Jostel A, Demssie Y. **Royal Devon & Exeter:** Lockett H. **Royal Infirmary of Edinburgh:** McLaren J. **Royal United Hospitals, Bath:** Allen K, Higgs E, Robinson A, Ward A, Hall B, Hillier N, Catchpole S, Wylie S. **Royal Sussex County Hospital, Brighton:** Burberry A. **Royal Victoria Hospital, Belfast:** Cooke B, Hunter S, Mcerlean U. **Sandwell Hospital, West Bromwich:** Davies P, Rock K. **Singleton Hospital, Swansea:** Udiawar M. **Smethwick Health Centre:** Harrington J. **Southern General Hospital, Glasgow:** Semple C, Struthers S, Kennon B. **St George's Hoapital, London:** Ahmed FW, Bano G, Patel N, Flanagan A, Wilson Z, O'Brien J, Firth P. **St John's Hospital, Livingston:** Teoh WL, Adamson K. **St Stephens Gate Medical Practice (Norfolk PCT) (SSGMP):** Haylock C. **Stirling Royal Infirmary:** Kelly C, Mackenzie A, Ryan L, Dewar L. **Stobhill Hopsital:** Smith C, Gordon D. **Sunderland Royal:** Nayar R, Carey P, Aspray T. **Torbay Hospital, Torquay:** Paisey R, Smith J, Lissett K, Dyer R, Dimitropoulos I, Weekes C. **Trafford General Hospital:** Snell A, Stephens WP, George A, Hopewell L. **Tyrone County Hospital:** Helmy A, Hameed A, McGirr B, Patterson H, Monaghan S, Bradley P, Evan H. **Ulster Hospital, Belfast:** Harper R, Carr S, McDonald P, Harding J, McIlwaine W, McLaughlin D, Whitehead H. **Victoria Hospital, Kirkcaldy:** Duncan C, Chalmers J. **Western General Hospital, Edinburgh:** Zammitt N. **Westmoreland General Hospital:** Banerjee M, Obale O. **Wharfedale Hospital:** Amery C. **Wrexham Maelor:** Dixon AN. **Yeovil District Hospital:** Bickerton AST, Pramodh S, Crocker M.

Acknowledgment

The ABCD nationwide liraglutide audit is an independent audit supported by an unrestricted grant from Novo Nordisk Ltd



Pairwise HbA1c comparisons with baseline: exenatide and liraglutide

	3 month	6 month	9 month	12 month	18 month	24 month
Exenatide, n	3545	2365	972	879	276	36
HbA1c change %	-0.74 (1.60)	-0.75 (1.83)	-0.77 (1.80)	-0.65 (1.84)	-0.83 (1.99)	-0.76 (1.91)
P-value	<0.001	<0.001	<0.001	<0.001	<0.001	0.022
Liraglutide, n	982	629	294	163	-	-
HbA1c change %	-0.99 (1.48)	-0.84 (1.57)	-0.65 (1.53)	-0.67 (1.49)	-	-
P-value	<0.001	<0.001	<0.001	<0.001	-	-

HbA1c changes shown as mean (SD)

Pairwise Weight comparisons with baseline: exenatide and liraglutide

	3 month	6 month	9 month	12 month	18 month	24 month
Exenatide, n	3366	2247	827	758	203	35
Weight change (kg)	-4.4 (4.8)	-6.5 (6.3)	-6.9 (7.2)	-8.3 (7.7)	-6.6 (7.8)	-9.1 (11.8)
P-value	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Liraglutide, n	974	671	301	168	-	-
Weight change (kg)	-2.7 (4.4)	-3.2 (5.3)	-3.9 (6.3)	-3.6 (6.2)	-	-
P-value	<0.001	<0.001	<0.001	<0.001	-	-

Weight changes shown as mean (SD)