

SUPPLEMENTARY DATA

PRIBA Study Group

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SUPPLEMENTARY DATA

Supplementary Table 1. The relationship between baseline markers of beta cell function and HbA1c change after GLP-1RA therapy in islet autoantibody (GAD/IA2) negative participants (N=501). *A negative regression coefficient denotes a greater HbA1c reduction with a higher baseline value or presence of dichotomous state

Baseline Characteristic	Association with HbA1c change	
	*Regression coefficient (mmol/mol)	Significance (p)
Diabetes duration (years)	0.23	0.025
Insulin co-treatment	1.79	<0.001
Fasting C-peptide (nmol/L)	-2.6	0.015
UCPCR (nmol/mmol)	-0.41	0.08

Supplementary Table 2. The association between insulin co-treatment and markers of beta cell failure.

Baseline Characteristic	Insulin treated Mean (95% CI) or % positive	Non insulin treated Mean (95% CI) or % positive	P value (T test or Chi ²)
Diabetes duration (years)	8.1 (7.6, 8.7)	12.9 (11.9, 13.9)	<0.001
Fasting C-peptide (nmol/L)	0.9 (0.85, 1.0)	1.4 (1.3, 1.5)	<0.001
UCPCR (nmol/mmol)	2.4 (2.1, 2.8)	4.3 (4.0, 4.7)	<0.001
Autoantobody (GAD/IA2) positive	8%	0.9%	<0.001

SUPPLEMENTARY DATA

Supplementary Table 3. The relationship between baseline markers of beta cell failure and HbA1c change after incretin therapy within insulin treated participants (n=209). *A negative regression coefficient denotes a greater HbA1c reduction with a higher baseline value or presence of dichotomous state.

Baseline Characteristic	Association with HbA1c change	
	*Regression coefficient (mmol/mol)	Significance (p)
Diabetes duration (years)	0.18 (-0.1, 0.4)	0.2
Fasting C-peptide (nmol/L)	-4.3 (-7.6, -1.0)	0.01
UCPCR (nmol/mmol)	-1.1 (-1.9, -0.2)	0.01
Autoantobody (GAD/IA2) positive**	8.1 (0.7, 15.5)	0.03

Supplementary Table 4. The relationship between baseline markers of beta cell failure and HbA1c change after incretin therapy within non-insulin treated participants (n=337). *A negative regression coefficient denotes a greater HbA1c reduction with a higher baseline characteristic value or presence of dichotomous state. **only 3 non insulin treated participants were antibody positive

Baseline Characteristic	Association with HbA1c change	
	*Regression coefficient (mmol/mol)	Significance (p)
Diabetes duration (years)	0.06 (-0.24, 0.36)	0.7
Fasting C-peptide (nmol/L)	-0.1 (-2.9, 2.7)	0.9
UCPCR (nmol/mmol)	0.02 (-.51, 0.54)	0.9
Autoantobody (GAD/IA2) positive**	-1.6 (-18.7, 15.6)	0.9
HOMA2%B	-.04 (-0.10, 0.02)	0.16

SUPPLEMENTARY DATA

Supplementary Table 5. The relationship between baseline markers of insulin resistance and HbA1c change after incretin therapy. *A negative regression coefficient denotes a greater HbA1c reduction with a higher baseline characteristic value. ** non insulin treated participants only

Baseline Characteristic	Association with HbA1c change	
	*Regression coefficient (mmol/mol)	Significance (p)
BMI (Kg/m²)	-0.01 (-0.22, 0.16)	0.9
Triglycerides (mmol/L)	0.01 (-0.46, 0.47)	0.97
SHBG (nmol/L)	-0.01 (-0.09, 0.06)	0.7
HDL (mmol/L)	-0.67 (-5.4, 4.1)	0.8
HOMA2%S**	0.01 (-0.04 – 0.07)	0.67

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Supplementary Figure 1. Scatterplot showing the relationship between baseline fasting C-peptide and HbA1c change (6 months minus baseline, adjusted for co-treatment change and baseline HbA1c) after GLP-1 receptor agonist therapy. Linear regression $B = -3.2$, $p=0.002$

