Effects of IDegLira (insulin degludec/liraglutide) in patients with poorly controlled type 2 diabetes with HbA_{1c} >9%: analyses from the DUAL programme

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Background and aims: Despite a variety of treatment options for type 2 diabetes (T2D), more than half of patients do not achieve glycaemic control.
Materials and methods: In a *post hoc* analysis of the DUAL I (oral antidiabetic drugs [OADs]), II, V and VII (basal insulin + OADs) trials, we evaluated patients with an HbA_{1c} >9% at baseline to determine the impact of IDegLira on their glycaemic control. The definition of hypoglycaemia was: unable to self-treat and/or plasma glucose [PG] <3.1 mmol/L (DUAL I, II and V); unable to self-treat or PG <3.1 mmol/L with hypoglycaemia symptoms (DUAL VII).
Results: Within each DUAL trial, baseline characteristics for patients with HbA_{1c} >9% were similar for all treatment groups. In DUAL I, II and V, treatment with IDegLira resulted in greater reductions in HbA_{1c} from baseline, versus comparators of basal insulin or liraglutide, leading to lower HbA_{1c} at end of trial (EOT). In DUAL VII, reduction in HbA_{1c} from baseline and HbA_{1c} at EOT were comparable for IDegLira and insulin glargine U100 (100 U/mL) + insulin aspart (≤4 times/day). At EOT, the composite endpoint of HbA_{1c} <7% without hypoglycaemia was achieved by a greater proportion of patients treated with IDegLira than with comparators.
Conclusion: Even in patients with T2D with HbA_{1c} >9%, IDegLira treatment achieved glycaemic control with a high proportion of patients achieving HbA_{1c} <7% and clinically important composite endpoints of HbA_{1c} <7% without hypoglycaemia and/or weight gain.

Change in HbA_{1c}, HbA_{1c} at EOT and % patients achieving composite endpoints at EOT for patient group with baseline HbA_{1c} >9% from DUAL I, II, V and VII

	DUAL I			DUAL II		DUAL V		DUAL VII	
	IDegLira	Degludec	Liraglutide	IDegLira	Degludec†	IDegLira	IGlar U100	IDegLira	IGlar U100 + IAsp
N	190	107	86	62	84	71	52	37	46
Mean Δ HbA_{1c}, %	–2.7	–2.0	–1.9	–2.5	–1.2	–2.6	–1.8	–2.3	–2.2
Mean HbA_{1c} at EOT, %	6.8	7.6	7.7	7.2	8.3	6.9	7.8	7.1	7.3
% achieving HbA_{1c} <7%	61.6	41.1	34.9	45.2	16.7	56.3	23.1	43.2	45.7
% achieving HbA_{1c} <7% w/o hypoglycaemia*	46.3	26.2	33.7	37.1	14.3	42.3	11.5	38.2	22.0
% achieving HbA_{1c} <7% w/o hypoglycaemia* or weight gain	20.0	8.4	32.6	29.0	6.0	26.8	1.9	23.5	2.4

*In the last 12 weeks of treatment. †In DUAL II, maximum allowed dose of degludec was 50 U. Δ, change; EOT, end of trial; HbA_{1c}, glycated haemoglobin; IAsp, insulin aspart; IDegLira, insulin degludec/liraglutide; IGlar U100, insulin glargine 100 units/mL; w/o, without.

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