ADA Abstract

Abstract Title: Glycemic Control in People with Type 2 Diabetes (PWT2D) switching from NPH to Insulin Glargine 300 U/mL (Gla-300) – REALI Pooled Database

Abstract Body:

The effectiveness of Gla-300 in PWT2D switching from NPH is not widely documented.

REALI database combines individual data from 14 European studies in T2D. We analyzed data from PWT2D uncontrolled on prior basal insulin (BI), 1282 switching from NPH and 2899 from other non-NPH BIs (mainly glargine, 67%).

In the NPH group, mean±SD age was 63±9.4 years, BMI 32.5±5.8 kg/m², and median diabetes duration 12 years. The majority previously used biguanides (81%), followed by sulfonylurea (40%), and dipeptidyl peptidase 4 inhibitors (38%). HbA1c markedly improved after a 24-week Gla-300 therapy (**Figure 1A**). Mean±SD fasting plasma glucose decreased from 188.8±55.9 mg/dL at Baseline to 143.3±45.5 at Week 24. Gla-300 was started at a mean dose of 29.4 U/day and titrated up to 35.6 at Week 24, with no body weight change.

In the non-NPH BI group, baseline characteristics were comparable to those in the NPH group, except for higher baseline HbA1c and FPG in the latter. **Figure 1B** illustrates HbA1c improvement in the non-NPH BI group, in which Gla-300 mean starting dose was 35.4 U/day increasing to 41.7 at Week 24, with no body weight change.

Hypoglycemia reporting was relatively low in both groups.

This analysis shows that PWT2D, previously uncontrolled on BI, benefited from switching to Gla-300 in terms of HbA1c improvement, and this was especially observed in those previously treated with NPH.

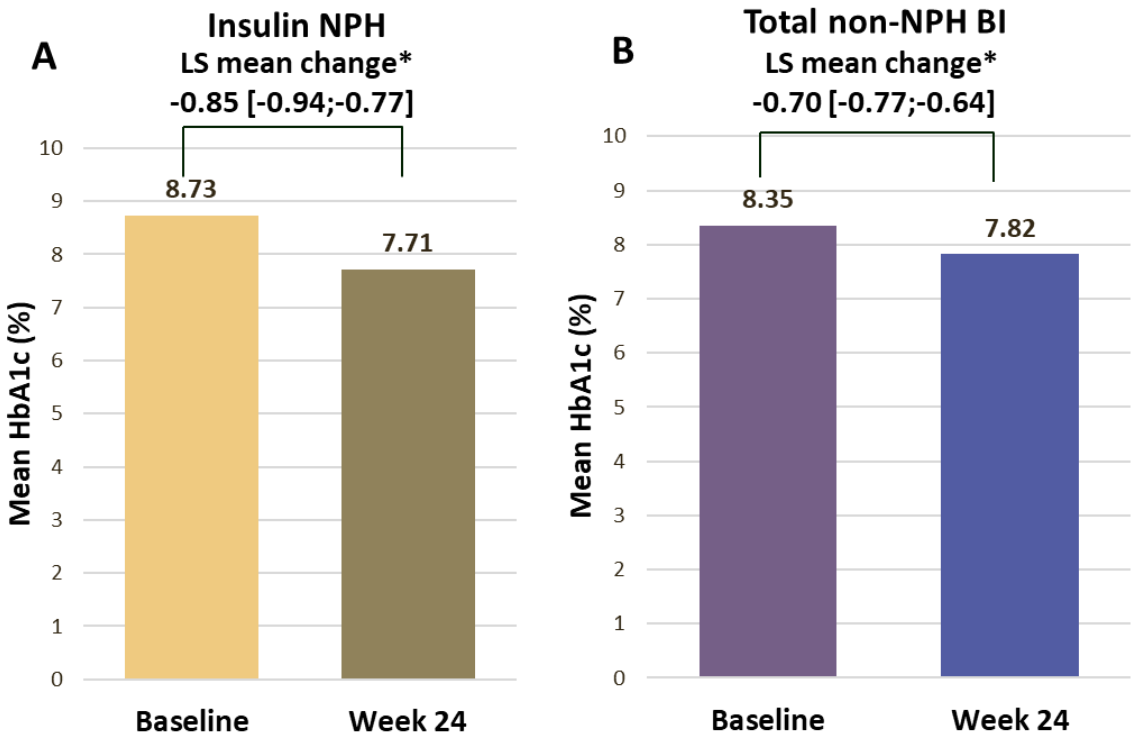

Figure 1. Mean HbA1c (%) Change from Baseline to Week 24 During Treatment with Insulin Glargine 300 U/mL in People with Type 2 Diabetes Previously Treated with **(A)** Insulin NPH and **(B)** non-NPH Basal Insulin. *LS mean change [95% CI] from Baseline to Week 24 derived from MMRM adjusted for study, baseline HbA1c, interaction baseline HbA1c by visit, age, interaction age by visit, BMI and interaction BMI by visit. ***Abbreviations*:** BI, basal insulin; BMI, body mass index; CI, confidence interval; HbA1c, hemoglobin A1c; LS, least square; MMRM, mixed-effect model with repeated measures; NPH, neutral protamine Hagedorn.

Keywords: Glycemic Control; Safety; Efficacy; Hypoglycemia; HbA1c; Gla-300, NPH, Basal Insulin

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