

Real-World Effectiveness and Safety of Insulin Glargine 300 U/mL in Patients with T2D Uncontrolled on NPH or Premixed Insulins as Part of Routine Clinical Practice in Bulgaria: ToUPGRADE Study

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Slide deck





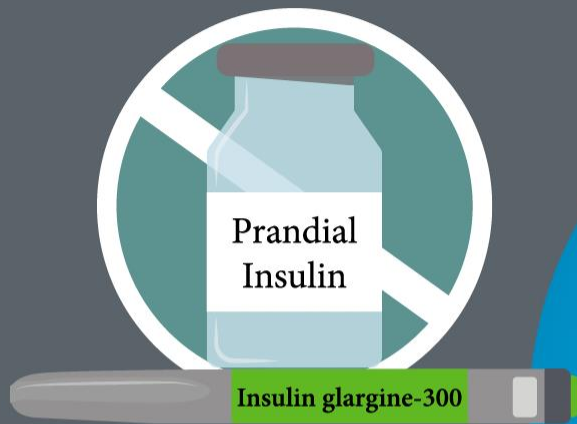
Second-generation basal insulin analogue

Highly effective in controlling HbA1c

Minimizes the risk of hypoglycemia



Real-world study



In patients with type 2 diabetes previously uncontrolled on NPH +/- prandial insulin or premixed insulin treatments



T-UPGRADE

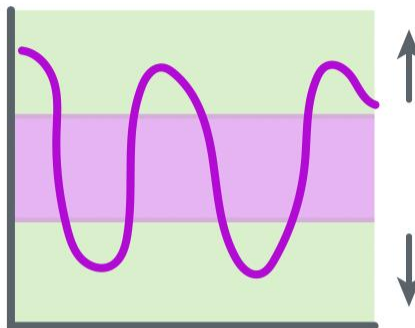
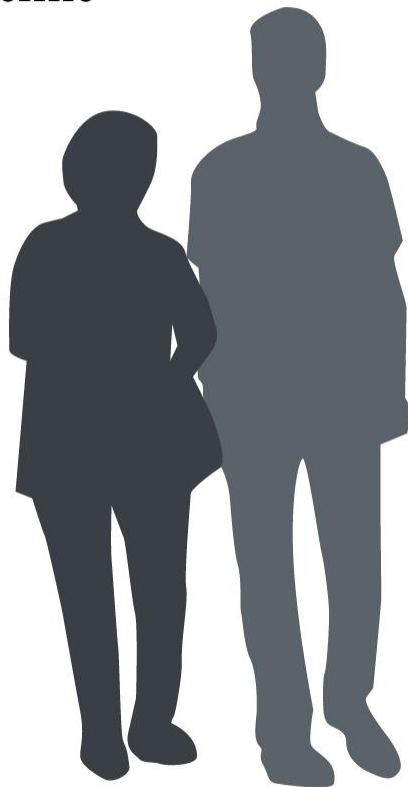
Conducted
over 24 weeks



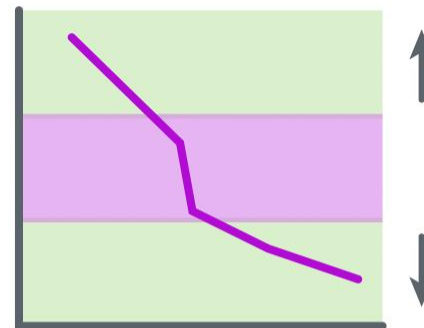
286 patients
with type 2 diabetes
in Bulgaria



Baseline



Poor metabolic control



High risk of hypoglycemia

Baseline



HbA1c

9.6%

Fasting plasma
glucose

**13.1
mmol/L**

By end of
24-week study



HbA1c

9.6%

-1.9; $p < 0.001$

7.9%

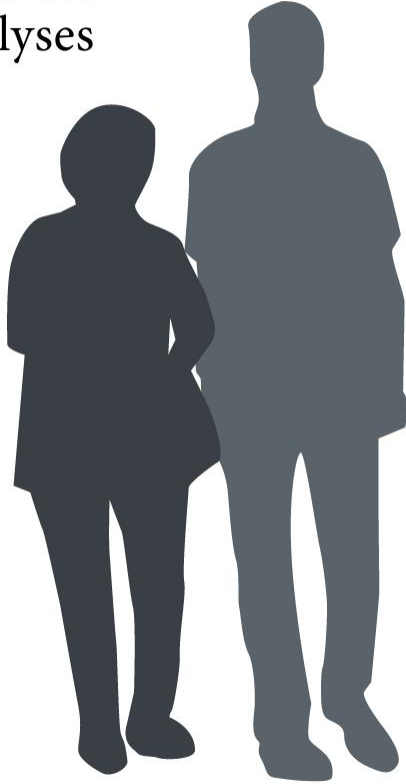
Fasting plasma
glucose

13.1
mmol/L

**8.3
mmol/L**

-4.8; $p < 0.001$

Separate analyses



HbA1c

Fasting plasma glucose

NPH pre-treated group

Baseline

9.6%

24 weeks

-1.8; p<0.001

7.8%

Premixed insulin pre-treated group

Baseline

10.2%

24 weeks

-2.0; p<0.001

8.2%

NPH pre-treated group

Baseline

12.5 mmol/L

24 weeks

-4.5; p<0.001

8.0 mmol/L

Premixed insulin pre-treated group

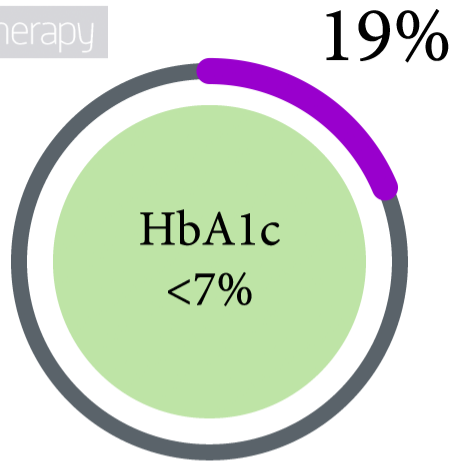
Baseline

14.6 mmol/L

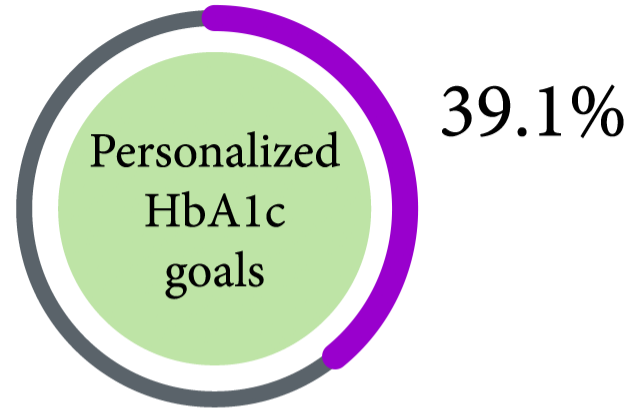
24 weeks

-5.5; p<0.001

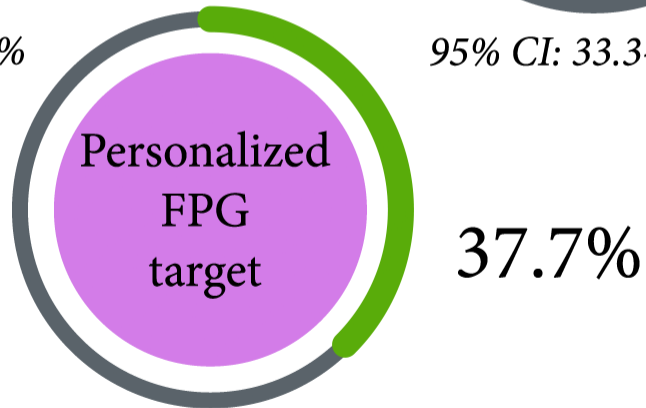
9.1 mmol/L



95% CI: 14.6-24.1%



95% CI: 33.3-45.1%



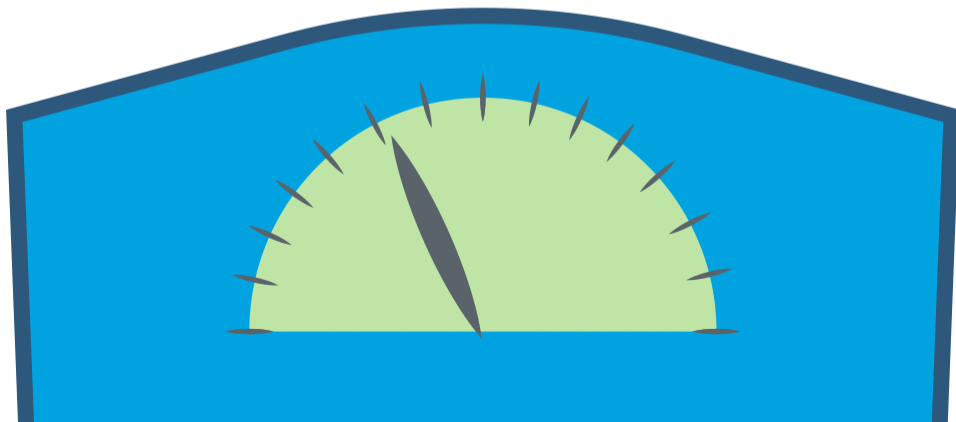
95% CI: 32.0-43.8%

Statistically significant decrease in overall body weight

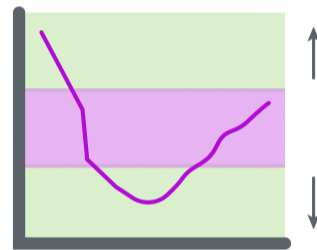
88.3 to 87.0 kg from baseline to week 24

Decrease of 1.3 kg

$p < 0.001$



Rates of hypoglycemia were low



7.7% of the patients reported at least one hypoglycemic event*

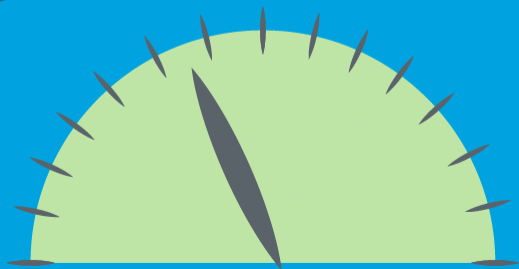
and only **1.1%** of patients reported nocturnal hypoglycemia*

*confirmed (< 3.9 mmol/L) and or severe

**Premixed insulin
pretreated patients**



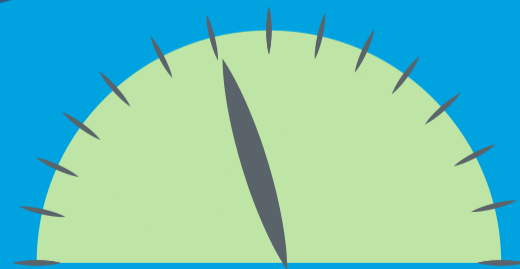
Decrease of 2.2 kg



**NPH pretreated
patients**



Decrease of 1.0 kg



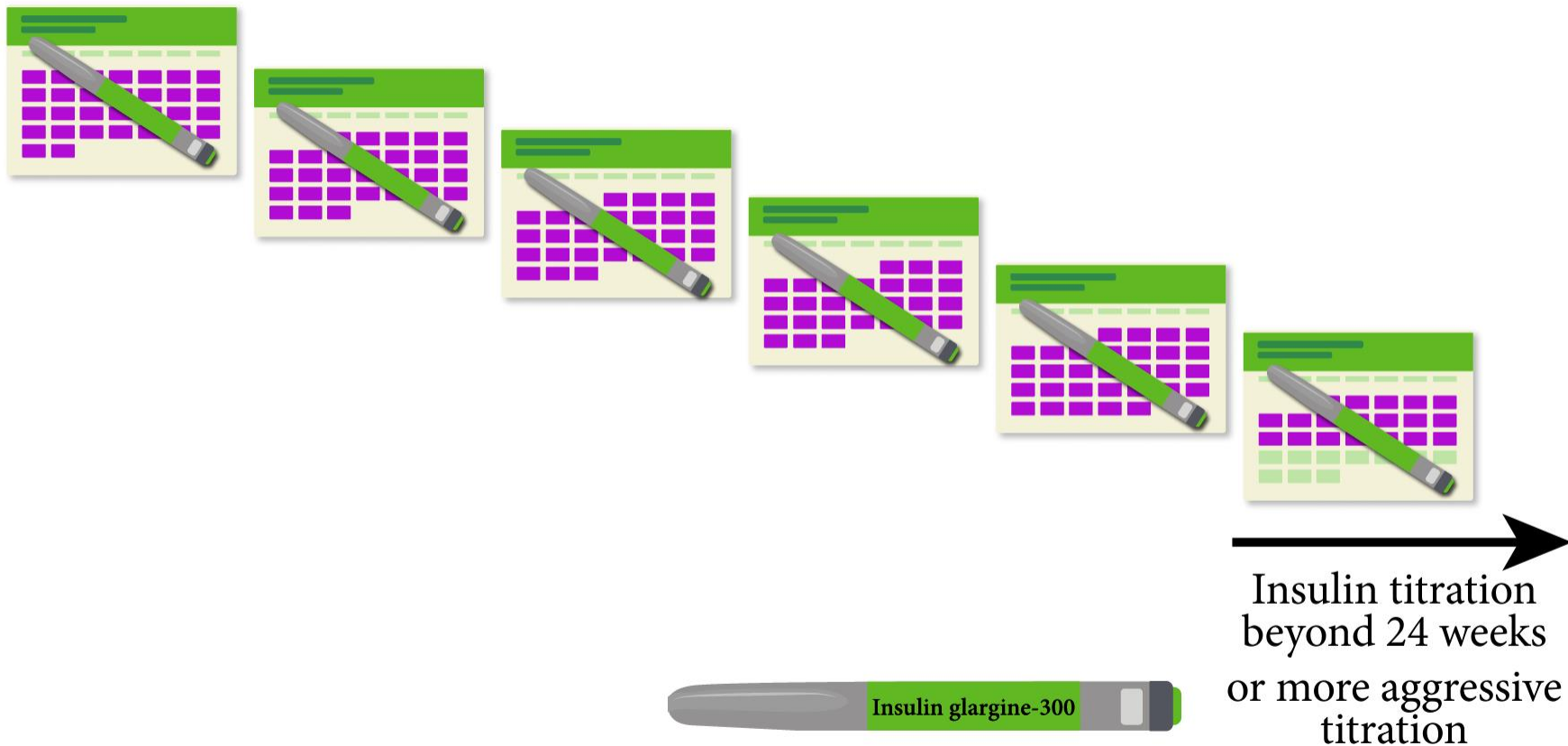
$p=0.045$

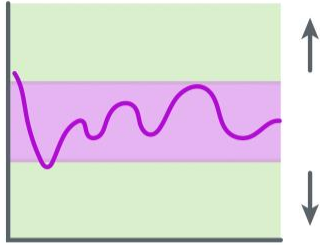


4 units

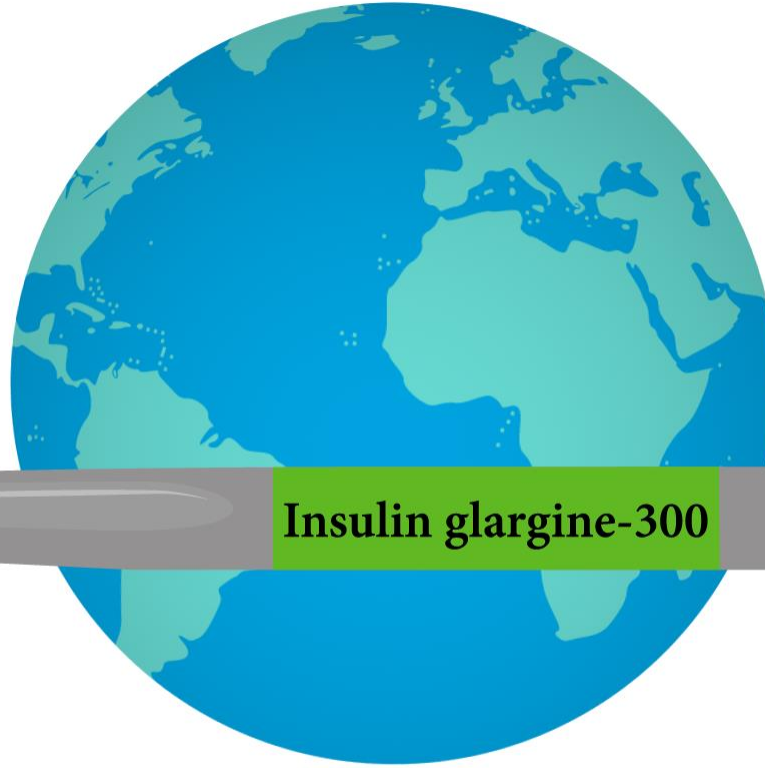
Mean daily increase
in basal insulin







Improved
glycemic control



Improved insulin
treatment
satisfaction

*In people with type 2 diabetes inadequately controlled on NPH +/- prandial insulin
or premixed insulin analogues*



The results confirm other real-world observations indicating that **clinical inertia** and **suboptimal basal insulin titration** may help explain why the majority of patients with type 2 diabetes remain uncontrolled.