

# Use of Oral Semaglutide and Associated Clinical Outcomes in Thai Patients with Type 2 Diabetes: An Observational, Single-Arm, Multicentre, Retrospective Cohort Study (REALISED)

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## KEY TAKEAWAY

Real-world data from Thai tertiary care show oral semaglutide achieves glycemic and weight benefits consistent with trial outcomes in routine T2D practice.

7.3-% point (95% CI: 7.2–7.4)  
83.5 kg (95% CI: 82.7–84.2)

HbA1c  
Body weight

6.6-% point (95% CI: 6.4–6.7)  
78.4 kg (95% CI: 77.4–79.4)



Baseline (Week 0)

Oral semaglutide



Week 26 ± 6

Absolute HbA1c change : -0.8 %-point (95% CI: -1.0 to -0.6), p<0.0001;  
Absolute body weight change : -5.0 kg (95% CI: -6.2 to -3.9), p<0.0001

## AIMS

- To assess change in HbA1c (primary objective) and body weight (secondary objective) after 26 ± 6 weeks of oral semaglutide
- To describe patient demographics

## BACKGROUND

- Oral semaglutide is effective in trials for glycemic control and weight reduction in type 2 diabetes (T2D), but real-world Thai data are limited.
- Given Asians' lower body mass index (BMI) and earlier disease onset, local evidence is crucial to guide treatment decisions.<sup>1,2</sup>

## METHODS

### Study design

- Observational, retrospective, single-arm, multi-centre cohort in Thailand, using electronic health records & chart reviews of adults (≥ 18 years) with T2D receiving oral semaglutide in routine practice.

### Eligibility criteria

- Naïve to injectable antidiabetic medications.
- Initiated oral semaglutide (3, 7, or 14 mg) between Apr 2022 and Dec 2023.
- Completed ≥ 6 months of treatment.

### Procedure and analysis

- Baseline data** : HbA1c & weight (treatment initiation day or ≤ 12 weeks prior) other characteristics (≤ 52 weeks prior) from routine practice.
- Follow-up** : HbA1c & weight tracked to end-of-study visit (Week 26 ± 6).
- Analysis** : Changes analyzed using MMRM, adjusted for semaglutide dose, site, baseline values, age, diabetes duration, and number of baseline antidiabetic medications.

Figure 1 : Study design



## RESULTS

Table 1 : Baseline characteristics of participants (n=195)

Characteristics	N (%) / Mean (SD)
Age group (years)	56.5 (11.9)
BMI categories (kg/m <sup>2</sup> ) <sup>a</sup>	
< 25	29 (15.4)
25 to < 30	55 (29.3)
≥ 30	104 (55.3)
HbA1c level (%) <sup>b</sup>	
< 7.0	72 (36.9)
7.0 to < 8.0	81 (41.5)
≥ 8.0	42 (21.5)
Duration of T2DM (years) <sup>c</sup>	
< 5	65 (40.6)
5 to < 10	30 (18.8)
≥ 10	65 (40.6)
No. of concomitant antidiabetic medications <sup>b</sup>	
0	40 (20.5)
1	48 (24.6)
2	58 (29.7)
≥ 3	49 (25.1)
eGFR (mL/min/1.73m <sup>2</sup> ) <sup>a</sup>	
≥ 90	112 (59.6)
60 to < 90	51 (27.1)
< 60	25 (13.3)

<sup>a</sup>Missing data (n=7); <sup>b</sup>Percentages may not sum to 100% (rounding); <sup>c</sup>Missing data (n=35). Abbreviations: SD, standard deviation.

Figure 2 : Semaglutide dose distribution over time since initiation (n=195)

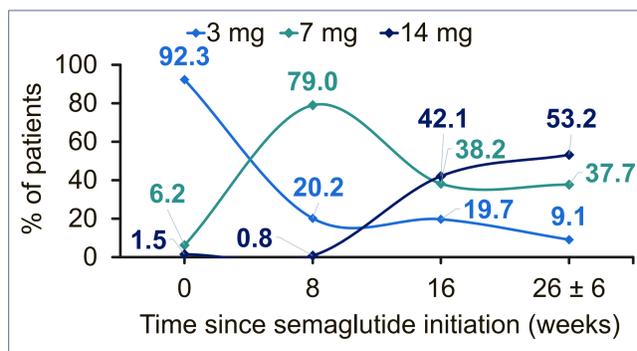
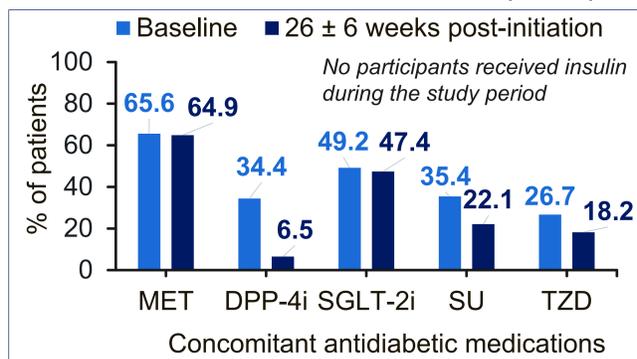
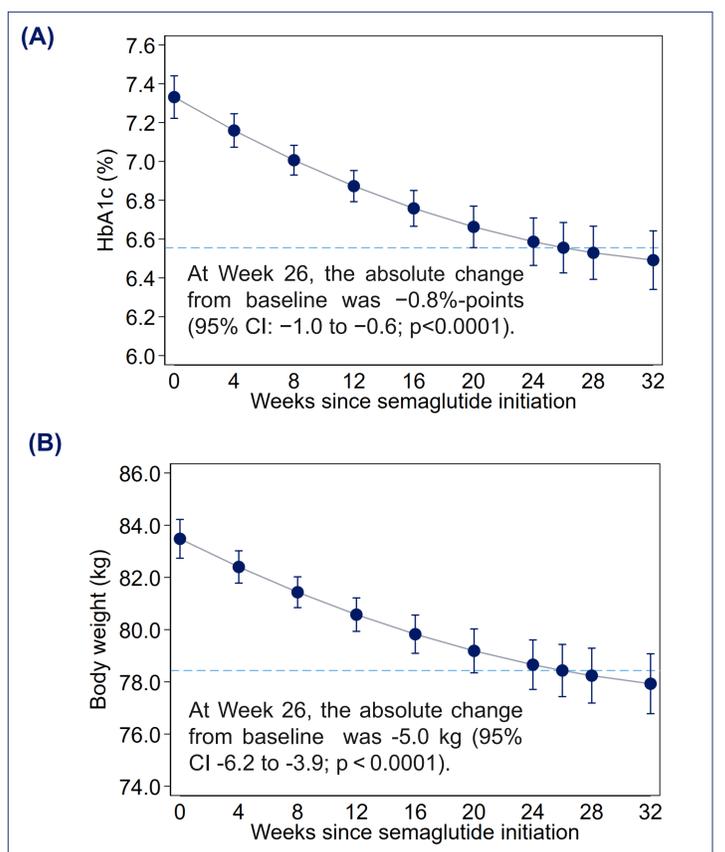


Figure 3 : Types of concomitant antidiabetic medications: Baseline vs. Week 26 ± 6 (n=195)



Abbreviations : DPP-4i: dipeptidyl peptidase-4 inhibitors, MET: metformin, SGLT-2i: sodium-glucose cotransporter-2, SU: Sulfonylureas, TZD: Thiazolidinediones

Figure 4 : Mean estimated (A) HbA1c and (B) body weight over time since semaglutide initiation (n=195).



## CONCLUSION

After 26 ± 6 weeks, participants showed marked improvements in HbA1c and body weight. These findings support oral semaglutide's use in Thai adults with T2D across a diverse population.