

## **Abstract**

### **Real-world retrospective evaluation of effectiveness and tolerability of oral semaglutide administered flexibly in a cohort of Italian patients with type 2 diabetes**

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**Introduction.** Oral semaglutide is the first glucagon-like peptide-1 receptor agonist (GLP-1RA) designed for oral administration; it offers a promising opportunity to facilitate an early approach to Type 2 Diabetes (T2DM). This real-world retrospective study aimed at evaluating its effectiveness and tolerability in the treatment of adult patients with T2DM when administered flexibly before lunch or dinner, instead of at morning wake-up.

**Methods.** Adult patients with T2DM were prescribed to take oral semaglutide on an empty stomach before lunch or dinner, waiting 30 min before eating/drinking/taking oral medications. Data on clinical outcomes were extracted from electronic medical records on all treated patients between Jan 2023 and May 2024.

**Results.** A total of 99 patients were recruited. The median follow-up was 274 days (about 9 months); baseline characteristics are reported in Tab.1. At follow-up, 83% of patients were taking oral semaglutide before dinner, and 17% before lunch; mean daily dose was 9.1 (3.2) mg. When administered flexibly, oral semaglutide was associated with a good tolerability and very low rates of GI effects, and showed a significant reduction in HbA<sub>1c</sub> and weight (-1.16% and -5.3 kg vs. baseline, respectively, both  $p < 0.001$ ). On average, patients reduced body weight by -6% vs. baseline ( $p < 0,001$ ).

**Conclusions:** This study shows that in the real-world setting, oral semaglutide confirms effectiveness and a good tolerability profile when administered flexibly before lunch or dinner to patients with T2DM.

**Keywords:** GLP-1RA; flexible dosing; oral semaglutide; real-world evidence; effectiveness; tolerability

Sex (M %)		56%
Age (y)		63.6 (9.8)
Weight (kg)		88.1 (13.6)
BMI (kg/m <sup>2</sup> )		31.6 (4.3)
HbA <sub>1c</sub> (%)		7.9 (1.4)
Concomitant T2DM medications	Metformin	74%
	GLP1	6%
	SU	11%
	DPP4i	20%
	SGLT2i	22%
	Insulin	9%