

The Physician's Stewardship of Semaglutide

JEYAKANTHA RATNASINGAM

The glucagon-like peptide-1 receptor agonist semaglutide has significantly revolutionized the landscape of management of obesity and related comorbidities including type 2 diabetes. One of the key features of semaglutide is the need for a gradual dose escalation to mitigate gastrointestinal adverse events and the highly evident dose-dependent therapeutic effect¹.

Subcutaneous semaglutide is administered via a pre-filled pen. Before administration, the intended dosage of the medication is selected from the device, which holds a particular amount of the drug that delivers the designated dose for the given pen. In recent years, physicians and patients around the world have begun adjusting the dosage of semaglutide, to deliver less than the full intended dose.

Tailored dose adjustments can be rationalized based on four main reasons: To tailor the efficacy of weight loss and/or glycemia to individual goals, to mitigate gastrointestinal adverse events in those who are prone, to deal with the high cost of the medication, and to ensure continued usage in situations where supply may be disrupted due to access issues. This adjustment is usually done by what is now called 'microdosing', and a pragmatic guidance is required to assist both physicians and patients and to avoid misdosing^{2,3}.

For instance, subcutaneous semaglutide 2.4 mg, which is prescribed for chronic weight management, may be microdosed under supervision. The drug is available in multiple color-coded, dose-specific pens with a fixed count number of the 'clicks' when it is dialled during dosage selection to a maximal dose. Click-to-dose conversion varies by pen strength, and this is shown in Tables 1 and 2 for both subcutaneous semaglutide at 1.7 mg and 2.4 mg⁴.

While these are not in the product owner's recommendation, microdosing has become an important part of semaglutide therapy. It must be emphasized that

Table 1. Microdosing of Semaglutide Using the 1.7 mg Pen⁴

Semaglutide 1.7 mg pen (3 mL pen – 300 clicks in total)	
Number of 'clicks'	Dose approximation
20 clicks	≈ 0.5 mg
40 clicks	≈ 1.0 mg
Full dose	1.7 mg

Table 2. Microdosing of Semaglutide Using the 2.4 mg Pen⁴

Semaglutide 2.4 mg pen (3 mL pen – 300 clicks in total)	
Number of 'clicks'	Dose approximation
15 clicks	≈ 0.5 mg
30 clicks	≈ 1.0 mg
50 clicks	≈ 1.7 mg
Full dose	2.4 mg

physicians need to take the stewardship of this, for the optimal and sustained management of individual patients. They should discuss all potential risks and benefits of microdosing with patients before making an informed decision together.

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Professor of Medicine & Endocrinology,
Senior Consultant Endocrinologist & Head of Endocrine Unit, Dept. of Medicine,
Faculty of Medicine, Universiti Malaya, 50603 Kuala Lumpur, Malaysia