

## Semaglutide and weight loss – A concern for diabetics and pharmaceuticals

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*Madam*, On 4 June 2021, the FDA approved intravenous Wegovy (semaglutide) for weight-loss management in chronically obese individuals.<sup>1</sup> However, Wegovy, also sold under the name Ozempic, has long been a shortcut for rapid weight loss and gained a reputation as “the worst kept secret in Hollywood”.<sup>2</sup> A recent rise in the popularity of these drugs has led manufacturers struggle to meet the increased demands, resulting in shortages of the medication—even for critical diabetic patients for whom they were initially recommended.<sup>2</sup> In this letter, we scrutinise the possible adverse effects of the rising usage of semaglutide for weight loss.

A Semaglutide Treatment Effect in People with Obesity (STEP) trial of 3613 participants showed that 2.4 mg of semaglutide can cause clinically significant weight loss of 14.9% [95% CI] and improve cardiovascular function when used over 68 weeks.<sup>3</sup> The primary reported contraindications were gastrointestinal disturbances such as nausea, vomiting, and diarrhoea.<sup>3</sup> However, another STEP 1 trial the following year found that this weight loss was not sustainable as 1961 participants regained 11.6% (SD: 7.7) of the lost weight after discontinuation.<sup>4</sup>

The increasing usage of semaglutide medication for purely aesthetic weight loss without diet and lifestyle modifications has become a pressing problem. The use of semaglutide by non-obese and non-diabetic individuals poses a public health threat as there is limited literature available on its contraindications in this population. Similarly, the original aim of drug development was to achieve sustained, clinically significant weight loss and seek to improve associated comorbidities, including cardiovascular diseases. These benefits are lost when the primary focus of semaglutide use becomes weight loss alone and other health parameters are ignored. Trials show that discontinuation can lead to regain of two-thirds of the

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lost weight and a reversal of cardio-metabolic improvements.<sup>5</sup>

Moreover, this misinformed usage of semaglutide fuelled by media influence contributes to the age-old perception of ‘miracle drugs’ that allow quick fixes. Such erroneous beliefs can cause an unhealthy lifestyle and bingeing behaviours, highlighting the need for patient counselling at the time of prescription and stricter regulations on the distribution of semaglutide. Stricter regulations should also be implemented until the long-term effects and safety of using Wegovy, which contains a higher dose of medication (2.4 mg) as compared to antidiabetic semaglutide formulations, are extensively explored.

In conclusion, there is a dire need to promote the responsible use of semaglutide as a weight management technique that is secondary to lifestyle change. This will help encourage healthier, long-term weight loss with minimal contraindications.

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