From Diabetes to Weight Loss: The Problems with Semaglutide's Expanded Use

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In 2018, a semaglutide formulation, Ozempic, was introduced to the Canadian market [1], as a treatment for Type 2 diabetes. By stimulating the release of insulin from the pancreas, semaglutide results in lower blood glucose and body weight, combating symptoms of diabetes [2] Recently, semaglutide-based medications have been the subject of controversy due to their "off-label" use solely for weight loss purposes. Social media and celebrities have popularized the use of semaglutide drugs for weight loss, leading to a dramatic surge in public interest [3].

Supporters of the expansion to have semaglutide used for weight loss argue that semaglutide could be beneficial for those living with obesity. It can become incredibly difficult for someone struggling with obesity to lose weight due to hormone resistance [4]. Semaglutide can serve as a solution to improve fat metabolism and regulate appetite. With the negative impacts that obesity has on health, investigating possible treatments is crucial. However, semaglutide might not be the best option as a study demonstrated that after discontinuing its use, participants regained two-thirds of their lost weight [5]. Critics argue that semaglutide-based medications are seen as a "quick fix," preventing patients from learning the necessary lifestyle modifications to maintain their new weight. Regaining lost weight could cause emotional stress in individuals, along with putting them into a cycle of continually restarting the medication (semaglutide).

The use of semaglutide isn't limited to those with medical conditions, as it has also been used for cosmetic weight loss, which may be dangerous. Semaglutide has been reported to have both minor and major side effects. The minor side effects include nausea and stomach pain, while the more severe side effects include acute pancreatitis [6], breathing problems [7], and thyroid tumors [8]. Poison control centres in Ontario, Quebec and Manitoba have reported an increase in calls involving semaglutide, with rises of more than 50% [9]. If being used for cosmetic purposes, such as weight loss, then the risks may not outweigh the benefits. The long-term effects of using semaglutide for cosmetic purposes remain unclear, raising concerns about potential unknown health risks which may reveal themselves in the future.

Additionally, using semaglutide medications for weight loss was opposed due to shortages in supply which impacted those who rely on it as part of their diabetes treatment. In 2019, the number of people prescribed Ozempic (one of the brand names for semaglutide) in Saskatchewan was 5,755. By 2023, that number surged to 194,916, with only 40% of users being diagnosed with Type 2 diabetes, the original target demographic of the drug [10]. It is unclear whether the remaining users had been diagnosed with obesity or were taking it for cosmetic weight loss. Nonetheless, the seriousness of the semaglutide "shortage" was exemplified when many individuals with diabetes had to pause their treatment, and physicians were unable to prescribe it to those in need. Some provinces in Canada have attempted to remedy the shortage by implementing restrictions on access to semaglutide. The Ontario government, for instance, has limited coverage of Ozempic to those with Type 2 diabetes [11].

Lastly, the ability to obtain prescriptions for semaglutide through digital health companies has led to a lack of education surrounding the medication. Patients may consult physicians through a phone call, however, these providers don't have a relationship with the patient and lack access to their medical history. In some areas, a phone call isn't required and patients can get access to semaglutide by just filling out a form. Many weight loss companies, such as WeightWatchers, offer to connect participants with a physician who can prescribe semaglutide [12].

Individuals using these services are hoping to lose weight quickly and may not be in a position to make a fully rational choice regarding their health. With the lack of involvement from a primary care provider and quick turnaround times, patients aren't being given the opportunity to learn about their options and ask questions. There is also concern that individuals with eating disorders, such as anorexia nervosa, will gain access to the drug through these platforms, using it to further deteriorate their health.

While semaglutide-based medications offer promising benefits as treatments for diabetes and obesity, their expanding use raises ethical and medical questions. It is crucial for healthcare providers to inform patients of the risks associated with these medications, ensuring they have a full understanding of the potential harm they may be doing to their bodies. Restrictions on access to semaglutide should continue to prioritize those who need it for health reasons until more research is conducted on the long-term effects of using it for cosmetic purposes. It is also the responsibility of society and the media to avoid sensationalizing medication with significant health risks to impressionable audiences.

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