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GUEST EDITORIAL

Confronting South Africa's obesity crisis: Surgery or medication as the way forward?

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In the writings of Claudius Aelian (170-235 A.D.), the statesman Dionysius concealed his big frame from his followers by hiding in a tower from which only his head emerged.[1] Because he suffered from "difficult breathing" his doctors inserted long thin needles into him while in deep sleep, pushed until sensate flesh was reached. We do not know what happened to Dionysius, but the stigma surrounding obesity and the acknowledgement of its severe consequences is readily evident in ancient Greek writing.

The concept of body mass index (BMI) was established in the mid-20th century when the Metropolitan Life Insurance Company published "ideal" height-weight tables based on insured lives and mortality data that linked higher body weight with increased mortality.[2] In 1998 the National Institutes of Health declared obesity a "complex multifactorial chronic disease" with the immediate implication that an estimated 1.1 billion people worldwide would now be regarded as "diseased".[3] It was not until 2013, when the American Medical Association House of Delegates adopted a resolution recognising obesity as a disease, that the benefits of decreased stigma, increased coverage for diagnosis and multidisciplinary treatment, public health prevention strategies and research prioritisation could be seen. More recently, the Lancet Commission defined clinical obesity as a chronic illness specifically caused by excess adiposity, with "excess adiposity" confirmed by at least two measurements (BMI, waist circumference, waist-to-hip ratio, waist-to-height ratio), and with the diagnosis requiring evidence of reduced organ function and/or limitation in day-to-day activities.[4]

In 2016, 70% of South African women and 40% of South African men struggled with overweight or obesity – outdated numbers that grossly underestimate current disease burden.[5] The three main causes of death in South Africa (SA) in 2022 were type 2 diabetes mellitus (T2DM) (6.8%), hypertension (6.4%), and cerebrovascular disease (5.9%), with infectious diseases following thereafter, and trauma absent from the top 10 list.[6] Two facts highlight the interplay between obesity and infectious disease; the increased mortality seen in people living with obesity (PLWO) during the COVID-19 pandemic, and an ageing HIV population subjected to obesogenic antiretroviral therapy.[7,8] With the recognition that obesity is responsible for the growing prevalence of chronic diseases, it can be regarded as the single greatest threat to public health this century.

While lifestyle modification through diet and exercise remain foundational to obesity management, systematic review of randomised trials consistently demonstrate its limitations as a standalone treatment.[9,10] Initial weight loss of 5–10% is typically achieved within 6 months, but nearly half is regained within one year, with less than 20% of individuals maintaining long-term success. These disappointing results under optimal conditions with intensive patient support seem unrealistic in a country where regular dietitian follow-up is unavailable, safe spaces for physical activity are limited, food insecurity drives unhealthy dietary choices and patients face competing priorities of survival and economic necessity.

Given that metabolic and bariatric surgery (MBS) and obesity management medications (OMMs) are becoming increasingly available as treatment options for PLWO, interrogating the role of both in countering disease and death in SA is paramount. Both MBS and OMMs have efficacy evidence: MBS is associated with long-term weight loss and mortality benefit in large prospective databases, and the benefits of OMMs have recently been reported in several small randomised controlled trials in populations suffering from obesity and its complications (T2DM, obstructive sleep apnoea and metabolic dysfunction-associated steatosis liver disease).[11,12] Expected weight loss is 25–35% after MBS, sustained in 70% of participants at 25-year follow-up, while weight loss with OMMs ranges between 15–25%, sustained only while remaining on treatment.

In 2022, indications for MBS were revised to include patients with a BMI ≥ 35 kg/m² (regardless of complications) and for a BMI 30–34.9 kg/m² with metabolic disease.[13] Thresholds are adjusted for Asian populations (BMI ≥ 27.5 kg/m²) and evidence on safety and efficacy in adolescents and children is mounting. In November 2025, the first SA Obesity Guidelines were published. These propose the use of OMMs for a BMI of 27 kg/m² with an accompanying obesity complication, and in December 2025, the first World Health Organization guideline on medical treatment of obesity in adults was published.[14,15]

SA falls critically short of international best practice in obesity treatment. Indications for MBS were first established in 1991, but it was only in 2010 that the first SA private

health insurer included coverage, while the first government centre established an MBS programme in 2017. The science of appetite regulation elucidates how incretin-based therapies function via suppression of the increase in appetite seen when PLWO attempt to lose weight.[16] Liraglutide, the first commercially available oral once-daily glucagon-like peptide-1 receptor agonist (GLP-1 RA) was approved by the Food and Drug Administration (FDA) for T2DM in 2005, with South African Health Products Regulatory Authority (SAHPRA) approval following in 2021. For obesity, the once-weekly injection GLP-1 RA (semaglutide, Wegovy®) was approved in August 2025, and the combination GLP-1 RA and GIP (gastric inhibitory polypeptide) agonist (tirzepatide, Mounjaro®) followed two months later. Due to cost implications of lifelong therapy, OMMs are not covered by SA medical insurers nor are they available through public sector procurement.

Obesity accounts for 15% of the annual health expenditure in SA (ZAR 33.2 million) and in the private sector ZAR 701 billion is spent annually to manage the complications of obesity.[17,18] Clinical and financial implications in a low-medium income country such as ours when choosing NOT to treat obesity is immense.[19] The question on whether SA should invest in medication or surgery is motivated by two experts making a strong case for each modality. However, this is the wrong question. The correct question is for how long we can afford to delay a coherent strategy that uses both. Pharmacotherapy represents the only intervention capable of reaching patients at scale through primary care, while bariatric surgery remains the most effective means of achieving durable disease modification and long-term cost savings. Positioning these approaches in opposition is a false dichotomy. A national obesity strategy should adopt pharmacological therapy as the frontline, scalable platform, with structured referral pathways to high-volume surgical centres for patients requiring definitive intervention. Without such integration, SA risks perpetuating a fragmented system that treats complications rather than the disease itself.

This is not a debate that can be resolved by choosing sides. Medication scales; surgery lasts. South Africa needs both. The real failure lies not in favouring one approach over the other, but in the absence of a system that connects them. Until pharmacotherapy is widely accessible and surgical capacity deliberately expanded, obesity care will remain reactive, inequitable, and unsustainable.

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