There is no magic bullet for obesity

Treating obesity has wide-ranging benefits on health and wellbeing.¹ Advances in medications for obesity have sparked interest, and excessive unregulated media attention has driven unprecedented demand for these new agents. However, the media coverage risks propagating the view that there is a magic bullet treatment for obesity.

Obesity is a chronic and relapsing condition with a complex multifactorial pathophysiology that spans genetics, metabolic maladaptation, neuroendocrine abnormalities, and major shifts in lifestyle, food composition, and societal inequities. An effective approach to obesity treatment must be multifactorial, individualised, and adaptable over time. The treatment will often require a combination of modalities and long-term therapy, akin to the accepted approach for other chronic diseases. The new medications will neither cure obesity nor render other approaches obsolete, including lifestyle interventions and metabolic surgery.

Although the latest generation of medications for obesity shows average results of 15-20% body weight loss per patient, seemingly even without major lifestyle interventions,² a few points are worth noting. First, weight loss observed in clinical trials using any obesity treatment has a Gaussian distribution, and up to 20% of participants do not experience clinicaly significant weight loss. Additionally, up to 10% of patients will struggle to tolerate the side effects from the medications.² Second, even people who meet the treatment goals with obesity pharmacotherapy might decide to explore metabolic surgery for long-term maintenance of weight loss and health gains. Third, the benefits of obesity medications cease if the medications are stopped.³ Fourth, regardless of the weight loss method or its effect on bodyweight, a healthy

lifestyle remains the cornerstone of optimising health.

Lifestyle interventions also are a valid and independent obesity management strategy. For up to 20% of patients, optimising nutritional quality, eating habits, eradicating maladaptive behaviours, and incorporating physical activity will successfully sustain weight loss and health gains.

Metabolic surgery also remains an effective therapy for obesity, reducing cardiovascular events, microvascular complications, some types of cancer, and all-cause deaths. As obesity is progressive, 10–20% of patients might regain a substantial amount of weight after surgery, often resulting in suboptimal control or relapses of the health issues related to obesity, and necessitate additional weight loss interventions (eg, use of medications). The inverse is also likely to be true for pharmacotherapy.

Combining surgical and medical approaches is standard practice in chronic disease management (eg, coronary disease). In oncology, a range of adjunctive treatments (eq, chemotherapy, radiotherapy, or immunotherapy) might be used in addition to surgery to improve outcomes. Likewise, in the treatment of type 2 diabetes and obesity, a combination of metabolic surgery and medications is associated with excellent glycaemic control, weight loss, and even reversal of diabetic complications.5 Patients with advanced forms of obesity often have suboptimal responses to lifestyle, medical, or surgical interventions alone; thus, combination treatment might be necessary.

A chronic multifactorial disease requires an approach that is long term, multifactorial, flexible over time, and tailored to the individual. We should not promote one form of treatment by dismissing the other options. We need to combine our efforts and use the right tools, at the right time, and for the right person to achieve optimal care and maximise health benefits for our patients. IL received grants paid to the Institution from Novo Nordisk, Pfizer, Merck, Sanofi, Boehringer-Ingelheim, and Mylan; and received consulting fees, covered travel expenses from Novo Nordisk, Eli Lilly, Johnson & Johnson, Merck, Pfizer, Sanofi, Boehringer Ingelheim, Zealand, Bayer, Intercept, Valeritas, Structure, Carmot, Shionoghi, Mediflix, and WebMD, PS received research grants paid to their institution from National Health and Medical Research Council; and declares coauthorship of manuscripts with medical writing assistance from Novo Nordisk. RVC received a research grant paid to the Institution from Johnson & Johnson, Medtech, and Medtronic; received honoraria for lectures, presentations, and speakers bureaus from Johnson & Johnson, Medtech, Medtronic, Janssen Pharmaceuticals, Novo Nordisk and Abbott: and is a member of the Scientific Advisory Board for Baritek and GI Dynamics. CWIR reports grants from the Irish Research Council, Science Foundation Ireland, Anabio, and the Health Research Board: serves on advisory boards and speakers panels of Novo Nordisk, Herbalife, GI Dynamics, Eli Lilly, Johnson & Johnson, Glia, Irish Life Health, and Boehringer Ingelheim, Currax, and Rhythm Pharma; CWIR is a member of the Irish Society for Nutrition and Metabolism; he was the chief medical officer and director of the Medical Device Division of Keyron in 2021; CWIR was gifted stock holdings in Keyron and divested all of them in 2021; CWIR continues to provide scientific advice to Keyron for no remuneration and provides obesity clinical care in the Beyond BMI clinic and is their shareholder

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