

The role of GLP-1 receptor agonists in the management of obesity: risks and opportunities for the Australian health care system

Originally introduced for type 2 diabetes mellitus, glucagon-like peptide-1 receptor agonists (GLP-1 RAs) have gained significant market traction for the treatment of patients with obesity. There is global heterogeneity across health systems in how these agents are currently used and supplied, which patient cohorts are eligible, how and for whom they are funded and for what duration.

The deployment of GLP-1 RAs for treatment of obesity has the potential to impact one-third of Australians. This warrants due consideration and planning for future funding models, systems and models of care to ensure equitable access. The Australian health system is an important test bed for how to strike a balance between addressing obesity-related health concerns, while maintaining the financial sustainability of health care systems given the uncertain health economics of GLP-1 RAs for obesity. This represents a timely case study on how we design, develop and implement new models of health care service delivery to meet the changing care needs of the Australian population.

In 2022, 32% of Australians were classified as obese.¹ The National Obesity Strategy 2022–2032 reported that obesity cost \$11.8 billion in 2018, of which \$5.4 billion was directly attributable to health care costs.² The cost of obesity is projected to reach \$87.7 billion in Australia by 2032.³

GLP-1 RAs have been touted as potential panaceas for the obesity epidemic. Prescription of GLP-1 RAs has significantly increased in Australia since 2014, largely driven by off-label prescribing in non-diabetic patients.⁴ These significant prescription volumes imply substantial cost ramifications for users, health systems and adjacent industries once restoration and scale up for these agents occurs. In this perspective article, we highlight the clinical, financial and logistical quandaries surrounding extending GLP-1 RAs to obesity in Australia.

Indications for GLP-1 RA use in Australia

There are multiple GLP-1 RA formulations on the market. Only liraglutide (Saxenda) and semaglutide (Wegovy) are indicated for obesity. No medications are subsidised by the Pharmaceutical Benefits Scheme (PBS) for obesity. Multiple PBS listing applications (Novo Nordisk 2022 and Eli Lilly 2023) have been rejected based on cost considerations and unknown long term cost effectiveness.^{5,6}

Emerging evidence for GLP-1 RA use in obesity for non-diabetic populations

Most randomised control trials of GLP-1 RAs in non-diabetic populations use a placebo comparator. A 2024 systematic review examining the use of GLP-1

RAs for obesity in non-diabetic populations found significant reductions in weight (mean difference, -8.77 kg, $p < 0.01$), and improvements in cardiovascular risk factors such as lipid profiles and blood pressure.⁷ There are no head-to-head trials comparing weight loss with bariatric surgery, and limited evidence for the optimal duration of treatment in non-diabetic patients. However, a benefit-harm balance modelling study, which included data from eight randomised control trials and 8847 participants, found that the benefits of GLP-1 RAs exceeded the harms for weight loss in the first two years of treatment for patients with a weight loss target of 10%.⁸

Why should GLP-1 RAs be funded in Australia for obesity?

GLP-1 RAs are expensive and may increase health inequity with access limited to those self-funding or those with insurance coverage. Obesity disproportionately affects low socio-economic status groups in Australia with differences in obesity rates of 13% between the lowest (38%) and highest socio-economic areas (25%).¹ Populations with lower socio-economic status are more likely to suffer from obesity-related health complications and cost taxpayers more through the public health system compared with those of higher socio-economic status. However, Australians of lower socio-economic status (defined by postcode) with type 2 diabetes were significantly less likely to be prescribed GLP-1 RAs (odds ratio [OR], 0.72 in 2013; OR, 0.95 in 2019).⁹ The way the Australian health care system funds or reimburses these agents will need to become more nuanced to include these medications in our treatment armamentarium. If we are to have equitable access, this may require smaller pilots in targeted populations for defined time periods, such as pre-transplant, pre-cancer treatment or pre-surgery.

Who should pay?

In Australia, 90% of bariatric surgery occurs in the private health system with limited access through the public system.¹⁰ Private insurers are currently redesigning funding strategies for bariatric surgery and GLP-1 RAs based on emerging evidence from overseas and real-time cost modelling (Box).¹¹

Australian health insurers are uniquely exposed to the financial risks of elective surgery claims, while the federal government traditionally bears most of the cost of medicines. There are potential advantages for private payers to fund models of care incorporating GLP-1 RAs, including potential reduction in demand for many common surgical procedures (eg, bariatric and orthopaedic), especially given the increased surgical risks in obese populations.¹² Pre-operative

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Selected private health insurer glucagon-like peptide-1 receptor agonist (GLP-1 RA) policies (by country)

Country	Insurer	GLP-1 RA policy
Australia	Bupa ³⁴	Has not previously covered weight loss medicines. As of 1 April 2024, will pay benefits towards select weight loss medications (subject to customer eligibility and yearly limits).
	Hospital Benefit Fund (HBF) ³⁵	Cutting rebates for weight loss drugs including GLP-1 RAs citing rising claims are making it unsustainable.
	Medibank ³⁶	Will cover prescribed weight loss medication approved by the Therapeutic Goods Administration under selected insurance plans.
	Newcastle Industrial Benefits (NIB) ³⁷	Will cover prescribed weight loss medication approved by the Therapeutic Goods Administration under selected insurance plans.
Germany	Allianz ³⁸	Will pay if a physician diagnoses a medical need.
	Debeka ³⁹	Weight loss treatments not covered.
United Kingdom	Bupa UK ⁴⁰	Available as part of weight management plans.
United States	North Carolina State Health Plan for Teachers and State Employees ¹³	No longer covered for obesity. These agents are still available for type 2 diabetes patients.

weight loss can improve surgical outcomes and reduce costs for patients.

There are caveats: several insurers in the United States have halted or limited coverage of GLP-1 RAs due to long cost horizons, or have conversely expanded coverage of bariatric surgery.^{13,14} However, the long cost horizon associated with GLP-1 RAs may entice younger patients to private health insurance, which could address longstanding structural issues associated with an ageing population and rising insurance premiums. If funded by insurers, GLP-1 RAs could provide an avenue for patients to engage in holistic wraparound weight management services rather than surgical options. It would be preferable that insurers offer this as an evidence-based hospital substitution option for selected high risk patients, rather than payment for GLP-1 RAs alone, under “extras” (general treatment) cover. Private health insurance could fund these agents as part of preventive health care programs where funding is divested from other health subscriptions and redistributed to a larger cohort of patients at risk of weight-related conditions. Or GLP-1 RAs could be prescribed as an alternative to bariatric surgery with access and funding reflecting the current system.

Expanding equitable access to GLP-1 RAs is being trialled by the United Kingdom’s (UK) National Health Service (NHS).¹⁵ Under UK guidelines, GLP-1 RA use is recommended for patients with a body mass index of at least 35 and at least one weight-related health complication.¹⁶ Under this £40 million pilot, general practitioners can prescribe up to two years of semaglutide (Wegovy). The key objective of this pilot is to determine whether there are downstream cost reductions in procedures and waiting lists for major elective surgery. Due to global supply issues for many GLP-1 RAs, this scheme is yet to be initiated.¹⁵

There are wider concerns about the funding of the NHS pilot and how it might affect funding to other health services. The pilot has been criticised for ad hoc clinical processes, and the lack of a standardised

model of care, and adjacent wraparound services.¹⁵ The lack of consistency in the delivery of services and differences in availability of parallel weight loss interventions and allied health supports may make evaluating these interventions difficult. This pilot may divert funding away from other preventive health strategies, and have insufficient resources and infrastructure to work as intended.¹⁵ If the NHS pilot is proven cost-effective in providing access to medicines and reducing the costs of weight-related conditions (eg, type 2 diabetes, surgical pathologies), it may provide much needed evidence for GLP-1 RAs to be PBS-funded in Australia.

Another large area of uncertainty for government or insurer funding is the optimal duration of subsidisation. This is relevant for the PBS. The policy of many international health insurance funds is that GLP-1 RAs used for obesity should be covered for a maximum of two years. The serial STEP (semaglutide) and SURMOUNT (tirzepatide) studies have been limited to treatment durations of up to 1.3 years and 1.7 years respectively.^{17,18} Only STEP-5 has investigated the enduring efficacy of treatment out to two years. In clinical practice, non-persistence with GLP-1 RAs beyond six months is increasingly driven by supply shortages, cost and patient preference. A large US-based retrospective cohort study reported that only 19% of 1911 adult patients who filled an initial prescription between 2015 and 2022 were still receiving GLP-1 RAs at one year.¹⁹ The Therapeutic Goods Administration (TGA) recommends that GLP-1 RAs should be halted if a patient has not lost at least 5% of total body weight after use at the maximal dose for 12 weeks.²⁰ Although there is evidence that an early response to GLP-1 RAs is associated with long term weight loss, many of these benefits are only effective while the medication is in use.²⁰

It is likely that any rollout of subsidised GLP-1 RAs in Australia would only include adult patients; however, in the US, semaglutide and liraglutide are approved in paediatric obesity for patients as young as twelve

years.²¹ There are limited studies on GLP-1 RA use for obesity in paediatric populations.^{22,23} More data on the ideal length of treatment in paediatric populations is needed to inform a robust cost–benefit analysis.

Who should prescribe: primary care, telehealth or specialists?

There are three models of care for GLP-1 RAs in Australia: a digital delivery model, a shared care model initiated by specialist services with general practitioner follow-up, and, a sole prescriber model (general practitioner, nurse practitioner). Regardless of the prescriber and supply mechanism, wraparound allied health care is important.

Large digital services funded by private equity or private insurers have attracted scrutiny for how they provide access to these medications. These services provide variable access to Australian general practitioners and allied health services. If deemed eligible, patients receive medications by mail. Such services have received criticism due to asynchronous prescribing, perceived lack of clinical governance, potential breaches of the advertising code, and use of compounded agents.²⁴ If these challenges can be addressed, there is potential for telehealth to provide valuable services, particularly where there is a lack of health care access. Additionally, digital services may provide avenues to meet demand for medical weight loss services that cannot be met by conventional models. There are safeguards required to restore trust in telehealth, including the TGA's ban of compounded GLP-1 RAs from 1 October 2024.²⁵ The Australian Health Practitioner Regulation Agency has created a dedicated unit to monitor prescribing practices of digital services.²⁶ The Australian Commission on Safety and Quality in Health Care is currently undertaking a virtual care validation study to inform future national standards for virtual care delivery.²⁷

Another option for accessing GLP-1 RAs is via specialist services. Given the burden placed on primary health care services for referrals to specialty services and the burden that would be placed on specialist services themselves, this would likely not be a sustainable solution. Under Medicare, patients can access care plans through their general practitioner, allowing for subsidised allied health services such as physiotherapy, dietetics and exercise physiology.²⁸ Therefore, access to GLP-1 RAs would ideally be via an extension of primary care.

Adverse effects and precautions for use

There is limited long term safety data for GLP-1 RA use in non-diabetic patients, with long term safety data being extrapolated from type 2 diabetes studies. The most commonly reported adverse effects are gastrointestinal symptoms including nausea, vomiting, diarrhoea and constipation.²⁹ Other serious adverse effects are rare but include acute pancreatitis and gall bladder disorders.²⁹ Concerns have been raised about increased anaesthetic risk from aspiration due to delayed gastric emptying.²⁹ Patients should receive

ongoing monitoring from their clinician after starting treatment with a GLP-1 RA.

Workforce education

There is no structured, evidence-based pipeline for patient and clinical workforce education about new treatments, such as GLP-1 RAs. This is a concern, given that many agents require subcutaneous injections. Patients who meet the criteria for a general practitioner chronic disease management plan may access Medicare-funded, credentialled diabetic nurse educators. Some private health insurers offer funding for health subscriptions to relevant consumer advocacy groups (eg, Diabetes Australia).³⁰ Specialty services have a limited role in educating patients who fulfil criteria to access these services, but are skewed towards more complex patients.³⁰ Community pharmacists also have an integral role in educating patients about delivery and titration of GLP-1 RAs.

In Australia, education of health care providers about new medicines is largely funded and organised by third parties, including pharmaceutical companies.^{31,32} Although this removes resource drain and administrative burden from health care providers, it also has drawbacks. Firstly, education from companies can be skewed towards their specific product, and risks the presentation of biased and overly optimistic views of likely patient outcomes.^{31–33} Secondly, under Australian legislation, companies cannot directly access consumers. This protects Australian consumers but limits the ability of companies to evaluate the effectiveness of training materials on improving patient health literacy. The effectiveness of this education on any of these stakeholder groups is unknown. Alternative strategies, such as reallocating pharmaceutical resources towards educating and funding community pharmacists to support patients in self- or supervised administration of GLP-1 RAs may be more appropriate for scaling up GLP-1 RA use in non-diabetic patients with obesity.

Conclusion

The introduction of GLP-1 RAs for the treatment of obesity has the potential to impact almost one-third of Australians. Consequently, this innovative drug class should come with due consideration and planning for future funding strategies, systems and models of care in Australia to ensure sustainable implementation for the right patients, at the right time, and with appropriate levels of clinical governance and ancillary wraparound services. This represents a watershed moment in how Australian payers unravel and manage compounding barriers to health equity with weight management as a worthy case study.

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