

Bariatric surgery: a call for greater access to coordinated surgical and specialist care in the public health system

The obesity epidemic has been escalating for over 30 years, but little attention has been paid to delivery of effective treatments in the public system

With a trebling of incidence since 1975, the World Health Organization estimates that most of the world's population now live in countries where overweight and obesity kill more people than underweight.¹ The Australian Burden of Disease Study highlights obesity as the second largest risk for fatal disease and largest risk for non-fatal disease over the past 15 years.² While death rates have been mitigated by a 35% increase in cardiovascular medicine prescriptions and a doubling of diabetes management therapies,³ our ability to successfully maintain this approach is likely to be overrun as Australian obesity rates climb to over 40% within a decade. Aside from the individual health impact, obesity creates significant community cost implications — direct costs are estimated to be \$5.4 billion and indirect costs a further \$6.4 billion per year in Australia.⁴ Prevention would be ideal but current strategies have not been successful at scale. Yet precious little resources are allocated for specialist treatment of obesity, including surgery, in our public hospitals.

From a therapeutic perspective, even modest weight loss can be beneficial, with 5% total body weight loss (TBWL) conferring health benefit and 15% resolving metabolic syndrome.⁵ This degree of weight loss should be possible with a combination of dietary, exercise and behavioural modifications but unfortunately only 3% of people who lose weight successfully in this manner are able to maintain > 5% TBWL beyond 2 years.⁶ Adhering blindly to this approach ignores the now well accepted concept of weight homeostasis with upregulation of physiological pathways leading to hunger and a diminution of energy expenditure in response to weight loss. Return to starting weight becomes almost inevitable.⁷ Ignoring this biological reality perpetuates blame and obesity stigma, creating barriers to appropriate treatment, and results in poor health outcomes.⁸

The emergence of effective pharmacotherapies provides greater options for treatment. Glucagon-like peptide-1 receptor agonists liraglutide (10–12% TBWL) and, in particular, semaglutide (15% TBWL) have been major advances.⁹

Bariatric surgery, however, remains the most durable and effective treatment for obesity, achieving in



most patients 20–30% TBWL for up to 20 years after surgery¹⁰ and improving comorbidities and quality of life. Randomised trials have demonstrated bariatric surgery to be superior in the treatment and control of type 2 diabetes compared with medical management,¹¹ and improvements in sleep apnoea, metabolic syndrome, polycystic ovary syndrome, non-alcoholic steatohepatitis and arthritic disease have been extensively documented.¹² Most compellingly, matched cohort studies have demonstrated clear reduction in all-cause mortality for patients with obesity undergoing bariatric surgery, with particular reduction in cardiovascular and cancer death compared with their non-operated cohorts.^{9,13} These health benefits translate to substantial health care cost savings,¹⁴ the magnitude of which is equivalent to smoking cessation.

These positive health benefits are leading to a paradigm shift in the management of metabolic disease. An international consensus statement recommending incorporating earlier and more strategic use of bariatric surgery in the treatment of diabetes is a striking example.¹⁵ New algorithms for other metabolic diseases are likely to follow. For these reasons, many now advocate that bariatric surgery be renamed metabolic surgery as the target is not simply weight loss.

Yet for all that, although bariatric surgery has continued to grow in Australia, it remains predominantly out of reach for patients reliant on the public health system. Over 90% of all bariatric surgeries in Australia are performed in the private

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sector, with critically low access in the public health system.^{16,17} In 2019, the national Bariatric Surgery Registry recorded 24 public hospitals performing bariatric surgeries but only 6 providing a significant volume (> 75 cases per year) (personal communication, Jenifer Cottrell, Operations Manager, Bariatric Surgery Registry). As few services are available, long waiting lists and delays for treatment are inevitable.

This inequity of access to care is alarming from an ethical, health and training standpoint. Obesity is of greatest frequency and severity in lower socio-economic strata¹⁸ who are often wholly dependent on public health care. If bariatric surgery is now considered part of standard of care for some metabolic diseases, such as diabetes,¹⁵ then we are denying appropriate care to a large proportion of the Australian community. Training, and quality and safety improvement predominantly occur in public hospitals, so if we wish to maintain and improve standards, we must bring surgery into the public training ground. Ensuring that clinicians of the future have access to training in obesity management will also help to reduce the well documented stigma that surrounds obesity as a disease.

Why is bariatric surgery so poorly provided for in the public health system? The specialty has grown quickly over the past 20 years, as attested by the number of procedures performed and increase in the number of surgeons offering services.¹⁶ Therefore, it is not a question of surgical resources.

The few services that do exist in the public system have shown that bariatric surgery can be delivered in public hospitals safely and with weight loss and health outcomes similar to those seen in the bariatric surgical literature.^{19,20} A recent publication examining long term data in a Medicare population in the United States found that patients undergoing bariatric surgery had significantly reduced risk of mortality, heart failure and stroke after 65 years of age, confirming that mortality benefit is not confined to paying patients.²¹ Therefore, it is not a lack of proven efficacy of the treatment in the public setting.

Bariatric surgery is commonly perceived as being high risk and requiring resource intensive tertiary level facilities. Australian Bariatric Surgery Registry data on over 80% of all surgery performed document a significant adverse event rate of 2.4% for primary surgery.¹⁶ This is comparable to cholecystectomy. Further local data demonstrate that in well prepared patients, surgery can be delivered effectively and safely in a low acuity public hospital environment in substantial volume.²² This is despite the fact that people with obesity who receive care through the public system are typically older, heavier and have more obesity-related comorbidities. It is not a question of safety or intensive inpatient resource use.

The reasons for such poor provision of bariatric-metabolic surgery in the public system are varied and nuanced at each level of governance. Obesity stigma based on misperception of obesity as a self-inflicted lifestyle choice, a lack of understanding of the powerful physiology that drives weight regain,

and a misplaced belief that conservative treatment suffices persist among the general community, medical practitioners and health policymakers, leading to easy sidelining of service establishment at the local level.

Activity-based hospital funding models do not provide for costs associated with multidisciplinary care clinics required for comprehensive bariatric surgical care (eg, dietetics, psychology, exercise physiology) or preoperative preparation programs shown to improve surgical outcome.²³

Variability and lack of standardisation of access criteria, treatment pathways and models of care can create uncertainty in federal and state health governance. A national framework for public bariatric surgery from the Australian and New Zealand Metabolic and Obesity Surgery Society and Collective Public Bariatric Surgery Taskforce²⁴ is an attempt to address this concern and standardise care for the public system.

Additionally, at all levels of governance is the fear that providing unlimited access to such a highly prevalent disease would open the floodgates. If all patients who meet standard eligibility criteria were to undergo bariatric surgery indiscriminately in the public setting, we would need to operate on over 800 000 people.¹⁸ Clearly this is not realistic. Such a strategy would result in unmanageable waiting lists and spiralling upfront costs.

Public hospitals are already under heavy strain and additional workload will represent a challenge, requiring careful triage. Who then should receive bariatric surgery in a resource constrained public hospital system? Importantly, can we more judiciously deliver it to those likely to benefit?

Like all health care rationalisation dilemmas, difficulty lies in defining greatest benefit.

There is no doubt, however, that current eligibility criteria warrant revision. Traditionally, eligibility for bariatric surgery is based on National Institutes of Health consensus criteria from 1992²⁵ and is body mass index (BMI) centric. This does not account well for the health impact of obesity or mortality risk posed to an individual.

An alternative approach is to consider mortality risk as a way of stratifying patients. The Edmonton Obesity Staging System,²⁶ based on a large North American epidemiological dataset, is one such attempt. It stratifies patients suffering obesity (BMI > 30) into mortality risk groups according to metabolic disease parameters and functional impact of obesity including mental health. It has been shown to be a greater predictor of mortality than BMI alone. Basing eligibility criteria on such a defined hard endpoint may not be nuanced but offers an evidence-based outcome benefit approach to triage for surgery within the publicly funded setting. The national framework for public bariatric surgery²⁴ recommends this approach to selection criteria in the absence of other compelling data to judge relative outcome value.

A tiered approach, focusing on the weight loss required to improve health rather than starting BMI, could further refine when and how surgery

is used.²⁷ Behavioural therapies could be primarily offered where 5% TBWL suffices to reduce risk, pharmacotherapy where 10–15% is needed, and bariatric surgery reserved for patients requiring > 15% TBWL or with resistant diabetes. Combined surgery and pharmacotherapy may provide greater efficacy and reduce need for revisional surgery. This accords with the concepts of value-based health care and personalised medicine, and potentially delivers more equitable resource allocation.

While greater access to bariatric surgery in public hospitals is greatly needed, the future demands the establishment of a structure that supports access to all current and future therapies in a multidisciplinary setting supporting health improvement for people with obesity rather than weight loss alone.

With due consideration, we believe it is eminently possible to provide specialist bariatric care across the public health system by defining value-based selection criteria and standardised care pathways combining all forms of obesity treatments. Not only will individuals benefit, the resultant reduction in diseases that had been caused by obesity will lead to system-wide health care savings.²⁸

To achieve this vision, however, a system-wide approach is required. Hospital networking to provide comprehensive care between high and low acuity centres for appropriately triaged patients and consistent eligibility criteria can provide accessible, local care with shared resource use. Commitment to provide purpose-specific funding, not simply activity-based funding, is needed to help establish supportive care around surgical activity and creation of shared care programs for ongoing treatment and follow-up. This will allow for sustainable delivery of specialist obesity care including surgery.

The past 2 years have seen our community focus almost wholly on a pandemic caused by an infectious disease. The obesity pandemic has now been escalating for over 30 years, yet little attention has been paid to effective treatments, or to how they could be delivered in the public system. No clinicians would be happy to deny their patients effective and potentially life-saving treatments, but unless we can find ways to advocate for the care of those living with severe obesity, they will continue to miss out and suffer the consequences. Perhaps now is the time to push for local change and ask “why not” for our patients. Continuing to ignore obesity in our health care system creates ongoing harm that we have the tools to correct.

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