

## HOUSE OF REPRESENTATIVES

### Standing Committee on Health and Ageing

### Inquiry into Obesity

## Response of the Monash Centre for Obesity Research and Education (CORE)

### Summary of response

Obesity is one of the most important health care challenges facing our community. The laparoscopic adjustable gastric band (LAGB) has been demonstrated to be a safe, effective and durable tool in the management of this disease – and currently remains the only treatment option with significant long-term success. Our own data confirm that this procedure can be performed effectively, safely and efficiently in the public sector, on even the highest risk patients. We believe that the barriers to publicly funded access to this surgery need to be addressed as a matter of urgency to increase access to this highly cost-effective treatment. Our key recommendations are:

- a) to increase, in an equitable manner, the accessibility of bariatric surgery to those Australians suffering with obesity
- b) to establish the first national, comprehensive bariatric surgery registry

### The Monash Centre for Obesity Research and Education (CORE)

CORE is a Monash University centre that operates within the Faculty of Medicine, Nursing and Health Sciences. The Centre is a unique collaboration of researchers and educators studying the different facets of obesity. CORE's differentiation lies in the centre's application of a multidisciplinary approach to the study and management of obesity, through integrating strengths in epidemiology, public health, basic science, clinical research and therapy, and professional and community education.

CORE aims to understand the disease of obesity, to identify optimal methods for its long-term management that are safe and cost effective, and to determine preventive strategies that can be implemented. One of CORE's key strengths is its leadership in the research of the comorbidities of obesity and the health impact of weight loss, through use of the laparoscopic adjustable gastric band (LAGB).

The CORE Executive Team Members are Prof Paul O'Brien (Director), A/Prof Max de Courten (Head Clinical Epidemiology), Dr Wendy Brown (Head

Clinical Studies), Dr Anna Peeters (Head Public Health), Ms Catherine Keating (Head Health Economics), and Ms Cheryl Laurie (Head Clinical Patient Care).

## Obesity – the problem

Obesity is shaping to be the greatest health challenge of the 21<sup>st</sup> century. Almost two thirds of Australian adults are overweight (BMI >25) and more than 20%, (an estimated 2.6 million Australians) are obese (BMI >30) <sup>1</sup>.

It is not the aesthetic change that is of concern, rather, the fact that obesity causes or contributes to over 60 different medical conditions <sup>2</sup>. Obesity is now second only to smoking as a preventable cause of death, and it is estimated that obesity accounts for 14% of all deaths in the USA <sup>3</sup>. In Australia obesity is estimated to cause around 12% of all cardiovascular disease, 14% of cases of osteoarthritis and 11% of all type 2 diabetes <sup>4</sup>.

## Weight loss – the need

It is unusual for a health problem of such magnitude to have so few options for control or commitment by health authorities <sup>5</sup>. Weight loss has the potential to be the most powerful health intervention available today.

The management of obesity seems like it should be easy. Obesity is a result of caloric intake in excess of energy expenditure, and in simple terms, all any treatment needs to do is reverse that equation. Yet obesity is proving difficult to treat and even more difficult to prevent. There are currently no effective primary prevention programmes.

We therefore have a significant proportion of our population suffering from the disease of obesity, in need of a reliable, durable, and attainable solution.

## Weight loss – the disappointment

Current medical therapies can achieve only limited success. The typical experience of a diet and exercise programme is that a person will lose up to 10-15 kg during the time of intervention, then regain that weight over a 2-3 year period. They often will then go on to gain a further 2-3 kg <sup>6</sup>.

Pharmacological interventions have also been disappointing. A recent meta-analysis of pharmacological treatments showed mean weight losses after 1 year of only 2.9 kg for orlistat and 4.5 kg for sibutramine <sup>7</sup>. For obese individuals, these results are usually not enough to solve the health problems of obesity.

## Surgical options – the only effective treatment

Current day surgical options for the treatment of obesity include laparoscopic adjustable gastric banding (LAGB), biliopancreatic diversion (BPD), sleeve gastrectomy (SG) and roux-en-y gastric bypass (RYGB). A recent meta-analysis confirmed that the weight loss achieved after any bariatric procedure is well in excess from what may be achieved with conservative or drug therapy and that weight loss with each technique was comparable <sup>8</sup>.

We have previously reported that LAGB results in 50-60% excess weight loss. This effect appears to be durable<sup>9</sup>. Importantly, this weight loss translates to major improvements in obesity related co-morbidities. Alongside weight loss we see improvements in type 2 diabetes, hypertension, reflux oesophagitis, asthma, depression, non-alcoholic steatohepatitis, polycystic ovarian syndrome, sleep apnoea and quality of life<sup>10</sup>. Recent studies suggest that this weight loss is associated with a reduction in the risk of dying of between 24% and 72%<sup>11 12</sup>.

Australia and CORE lead the world with randomised clinical trials of weight loss surgery. We have shown that LAGB is as safe as, and yet more effective than, optimal medical therapy<sup>13</sup>. There was major and durable weight loss, control of the metabolic syndrome and improved quality of life. More recently we demonstrated that when LAGB is provided to obese patients with diabetes, 73% of the patients revert to non-diabetes within two years<sup>14</sup>.

## Obesity surgery in Australia

In Australia, 95% of all bariatric procedures performed are LAGB. The reason that this procedure has gained such popularity is that it is much safer than the other surgical options. A systematic review of all the bariatric surgery literature has shown that LAGB carries a very low risk of peri-operative death (0.05%) or complications (2.6%). This is one tenth of the risk of RYBG<sup>15</sup>.

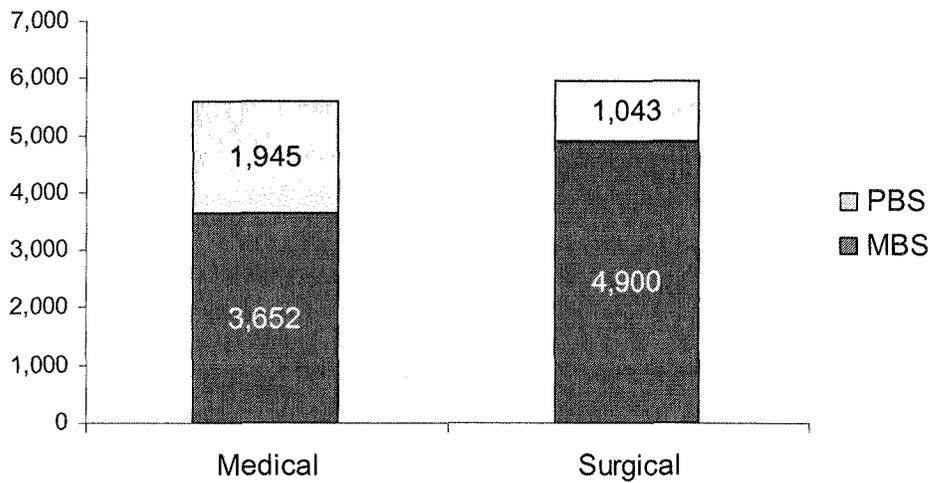
It is estimated that more than 8000 LAGB procedures will be performed in Australia this year. However less than 5% of these will take place in the public sector. This inequity of access has been highlighted by us and others in the past<sup>16 17</sup>. Now that LAGB has such well proven safety and effectiveness, its narrow availability in our public hospitals creates serious inequity in health care.

Patients who are dependent on the public system for their health care are more likely to be socio-economically disadvantaged and have more obesity related co-morbidities than those with access to the private sector. They therefore potentially have more to gain from this surgery. Given that we offer the same follow-up to our public and private patients, the only variable between the two groups is their ability to pay for treatment. We feel the similarity of results between these two groups should finally put to rest any pre-conceptions that public patients will not be as motivated to succeed as those patients who have paid for the procedure.

## Cost-effective treatment of obesity

Relative to non-operative interventions, bariatric surgery has been demonstrated to be a cost-effective weight loss intervention for morbidly obese patients<sup>18 19, 20</sup>. We are now analysing the cost-effectiveness of the randomised clinical trial of LAGB in the diabetic population described above<sup>14</sup>. These analyses suggest cost savings for the healthcare sector due to the decreases in medical care required for diabetes management and treatment. The figure (work in progress) indicates that even over the two year period of the trial the surgical group associated with lower medication costs than the optimal medical care control group (\$1043 vs \$1945).

**Figure 1: Mean per patient MBS/PBS costs for two-year trial period**



### Performance of LAGB in the public sector

To assess the success of our public LAGB programme, we recently reviewed the outcomes of our privately treated patients and compared them to our publicly treated patients:

- The median waiting time for surgery for patients in the public sector was 3.6 years (range 60 days-10 years). This does not include time from referral to first appointment, as we do not have accurate data on this. Private patients are able to have their surgery as soon as is feasible after their first consultation.
- The median length of stay for public patients was 1 day (range 1-7 days).
- Excess weight loss was 37% at 6 months, 47% at 12 months, 56% at 2-years and 54% at 3-years. These results were almost identical to the privately treated patients.

This series confirms that the LAGB is an effective tool in the treatment of obesity. In this series we have demonstrated that publicly funded patients achieve the same results as privately treated patients.

## Monitoring the costs and benefits of weight loss surgery

To ensure that the benefits of weight loss surgery are maximised, and that the associated harms and costs are minimised we propose the establishment of a national registry for weight loss surgery. There are currently no bariatric surgery registries available that are comprehensive and representative. The US National Bariatric Surgery Registry (Iowa, US) which has been renamed as the International Bariatric Surgery Registry (IBSR), and the Italian Collaborative Study Group for Lap Band (GILB) registries are voluntary, so the contributions to these registries may be skewed towards those from surgeons with an active research interest. We propose the establishment of an independent monitoring group to oversee the running of a nationwide, mandated registry, whose primary outcome measure will be peri-operative and late-post-operative mortality, derived through linkage to the National Death Index. Secondary outcome measures should also be collected to monitor both short-term and long-term health outcomes and costs.

## Obesity – the Proposal

To begin to address the already increasing burden of disease associated with the obesity epidemic it will be essential to increase provision of LAGB to those who will most benefit. Our proposal is that this increased access and availability goes hand in hand with the establishment of a comprehensive evaluation of the ongoing benefits and risks associated with the surgery. Our two key recommendations are:

- a) to increase, in an equitable manner, the accessibility of bariatric surgery to those Australians suffering with obesity
- b) to establish the first national, comprehensive bariatric surgery registry

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