

# Bariatric surgery is not a panacea for all people with diabetes



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Increasingly, obesity is recognised as a major health, social and economic issue for the UK. Along with this recognition, there has been growing interest in obesity treatments, especially potentially curative treatments such as bariatric procedures. Publication of the NICE guidelines on obesity in 2006 (NICE, 2006) reflected the need for national, evidence-based guidelines on when bariatric surgery should be considered. However, many primary care trusts have not followed the NICE guidelines and, commonly, NHS funding for bariatric surgery has only been available for those with a BMI of  $>50 \text{ kg/m}^2$ , often with further stipulations on the presence of medical comorbidities and the requirement that a period of 6 or 12 months of medical weight management needs to be completed before consideration of the funding application (Dent et al, 2010; Williams, 2011). It is not yet clear how the changes to commissioning of services will affect the numbers and types of people receiving funding from the NHS for bariatric surgery.

Bariatric surgery is undoubtedly an effective treatment for weight loss. However, the various procedures have very different results over time. For instance, the weight loss resulting from a gastric band is slower and, if successful, continues over several years compared with that of a gastric bypass or sleeve gastrectomy in which maximal weight loss is achieved by 12–18 months post-surgery, with weight regain in approximately 50% of gastric bypass patients at 24 months, which continues year on year, being most marked in the most obese individuals (Magro et al, 2008). The older forms of malabsorptive bariatric surgery, such as duodenal switch and bilio-pancreatic diversion procedures, and vertical banded gastroplasty, a restrictive procedure, are rarely performed in the NHS now (National Confidential Enquiry into Patient Outcome and Death [NCEOD], 2012). The effects on type 2 diabetes of the various forms of bariatric surgery differ according to the pattern of weight loss. For individuals undergoing gastric bypass or sleeve gastrectomy, it is frequently possible to dramatically reduce or stop their diabetes medication on the day of surgery, whereas after gastric banding, a reduction in diabetes medication is achieved more slowly as the individual gradually loses weight (Dixon et al, 2012).

As yet, there are no data on the effects of bariatric surgery on the microvascular complications of diabetes, including diabetic retinopathy, nephropathy or neuropathy. In the long term, people undergoing bariatric surgery may need to restart or increase diabetes medications. For these reasons, it is very important to emphasise the need for the people with diabetes undergoing bariatric surgery to remain on the diabetes register to undergo continued annual diabetes review.

Although there are data to suggest reduced mortality, most studies of the effects of bariatric surgery are short-term, often only of the first 2 years post-surgery. Most operations are now laparoscopic and patients are often routinely discharged the following day (NCEPOD, 2012). There are problems with long-term data collection as patients are frequently lost to follow-up or attend other healthcare providers with acute or chronic complications of surgery, which can be as diverse as: gastric bypass anastomotic leak or gastric band slippage; oxalate renal stones or gallstones; myelopathy or peripheral neuropathy; copper or vitamin B<sub>12</sub> deficiency; or the development of anorexia or alcohol addiction (Heber et al, 2010; King et al, 2012). These complications may therefore not be recognised or recorded even when a patient is undergoing regular follow-up at the operating centre. The reduction in costs for diabetes medications, continuous positive airway pressure treatment for obstructive sleep apnoea and treatment for other comorbidities related to obesity has to be weighed up against the costs of treating the acute and chronic complications of surgery, gastric band-fills or the long-term follow-up and life-long nutritional supplements necessary following gastric bypass and sleeve gastrectomy.

The effects of bariatric surgery beyond 10 or 20 years are not known and for the newest procedure, sleeve gastrectomy, there are few data even up to 5 years. People with diabetes need to be aware of the potential risks and benefits of the different procedures and fully committed to the surgery they undergo in order for there to be a successful long-term outcome. ■

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