

## Bariatric surgery:

the GP's role in long-term post-bariatric surgery follow-up

### INTRODUCTION

Obesity is a well-established risk factor for a wide range of health conditions, including diabetes, cardiovascular disease, and certain cancers. The clinical importance of severe obesity (body mass index [BMI]  $\geq 40$  kg/m<sup>2</sup>) has been brought to the forefront recently as this patient subgroup has received prioritisation for coronavirus vaccination. A recent meta-analysis reported that patients with obesity had an increased risk of hospitalisation (113% higher), ICU admission (74% higher), and death (48% higher) from coronavirus infection.<sup>1</sup> In March 2021, the Department of Health and Social Care announced over £70 million funding to be invested in weight management services, stating that this will also be used to 'support GPs and other health professionals to help make weight management an integral part of routine care'.<sup>2</sup>

The National Institute for Health and Care Excellence (NICE) recommends bariatric surgery as a treatment option for patients with a BMI  $\geq 40$  kg/m<sup>2</sup> or  $\geq 35$  kg/m<sup>2</sup> with obesity-related comorbidities, who have not managed adequate weight loss through non-surgical measures.<sup>3</sup> Bariatric surgery is the most clinically effective treatment for severe and complex obesity in terms of weight loss and improvement of comorbidities such as type 2 diabetes and hypertension. After bariatric surgery, guidelines recommend patients are followed up in specialist bariatric services for at least 2 years and then discharged under a shared-care model with annual monitoring of nutritional status and appropriate supplementation, to prevent complications from nutritional deficiencies.<sup>3-5</sup>

Parretti and colleagues' retrospective cohort study explores whether primary care follow-up after discharge from specialist bariatric services is in accordance with the NICE and British Obesity and Metabolic Surgery Society (BOMSS) guidance.<sup>3,4,6</sup> Overall, they conclude that patients are not receiving appropriate nutritional monitoring post-specialist discharge, with variability in annual recommended nutritional blood tests recorded ranging from 47.6% to 64.2% for common tests such as creatinine and much lower for more specific tests (for example, copper 1.2%–1.5% and zinc 4.3%–5.3% for gastric bypass).<sup>6</sup> The data suggest that <54% of patients who had a gastric bypass received recommended nutritional supplements, and

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for sleeve gastrectomy this was even lower.

### CHALLENGES OF MANAGING PATIENTS POST-BARIATRIC SURGERY IN PRIMARY CARE

In 2014, an estimated 3.6 million patients were potentially eligible for bariatric surgery in the UK, yet only 6032 operations were performed.<sup>7</sup> Given the pandemic and government focus on obesity, it is likely that there will be increased pressure on GPs to make lifestyle (tier 2), specialist (tier 3), and surgical (tier 4) weight management referrals (funding permitting). Therefore, developing safe and effective follow-up systems post-bariatric surgery are paramount.<sup>2</sup> Parretti and colleagues have highlighted that, at present, follow-up care for these patients in primary care is not optimal;<sup>6</sup> however, it is important to note that these patients should be discharged under a shared-care model between primary care and bariatric services and, therefore, the emphasis on understanding the failure of the current system should not solely rest with GPs.<sup>3-5</sup>

There is no nationally agreed shared-care model for post-bariatric surgical care, but various possible models of care have been proposed.<sup>5</sup> There is an unmet need for research investigating the effectiveness of different shared-care models and this may help inform commissioners developing or revising local agreements to implement models with the most clinical- and cost-effective long-term results. Furthermore, given that shared-care models are relatively new to bariatric services, it would seem appropriate for clinical commissioning groups (CCGs) and bariatric teams to review on an annual basis whether local protocols are working. This is unlikely to be happening based on the findings from Parretti *et al.*<sup>6</sup>

The initial challenge when patients are discharged from bariatric services to primary care is ensuring that there is a system in place, as part of the shared-

care protocol, which outlines how annual follow-up appointments will be organised. A prerequisite for bariatric surgery specified by NICE is the person commits to long-term follow-up.<sup>3</sup> On consenting to bariatric surgery and again at discharge from the bariatric service, patients could be advised that they are responsible for booking annual GP appointments and the risks and consequences of nutritional deficiencies if they do not attend recommended follow-up appointments. This may empower the patient to take ownership of their care and potentially reduce the risk of patients being lost to follow-up.

Patient-initiated follow-up is well established in other specialties though has typically been used for patients to book appointments dependent on their symptoms, rather than scheduling regular reviews. However, we know that patients living with obesity may be less likely to initiate healthcare reviews because of previous experiences of stigma from healthcare professionals and worries they have not met expectations post-surgery. Another strategy is for GP practices to ensure they keep an up-to-date 'Bariatric Surgery Patient Register' as advised by the Royal College of General Practitioners.<sup>8</sup> An automatic diary recall of these patients could be set up; however, this system may be prone to error if contact details are not kept up to date or when patients move practice.

A second challenge is for GPs to be aware of what needs to happen at review appointments, in terms of specific blood tests and nutritional supplementation required. As only a relatively small number of patients have bariatric surgery each year, GPs are unlikely to frequently encounter such patients and therefore may not feel confident in managing them. NICE does not give specific recommendations on the blood tests or nutritional supplements required but BOMSS provides detailed guidance.<sup>3,4</sup>

There is scope for one single summary document for GPs to be available from both NICE and BOMSS. There is also a need for local shared-care protocols, guidance, and GP educational materials to be readily available (for example, through discharge letters tailored to the patients' individual needs and CCG-developed web resources).<sup>8</sup> The BOMSS guidance suggests routine annual blood tests, and to facilitate GPs requesting these it may be possible to set-up bariatric surgery blood profiles on GP blood-requesting systems, as has been done with other chronic disease management.<sup>9</sup>

A further consideration regarding follow-up appointments is whether GPs are the most appropriate person to provide these, or whether they are simply the default provider of care. It could be argued that community dietitians are better placed to offer long-term follow-up care. There may be a wider role for dietitians to become embedded within primary care teams to provide weight management support for patients with obesity.<sup>10</sup> Dietitians will be more aware of the symptoms of rarer nutritional deficiencies following bariatric surgery that require additional testing (for example, selenium). Community pharmacists could also be involved in long-term care and undertake annual medication reviews for these patients to ensure correct nutritional supplements are prescribed and review the appropriateness of other regular medications.<sup>11</sup>

The NHS Long Term Plan (<https://www.longtermplan.nhs.uk>), which aims to provide 'fully integrated community-based health care', and the new Integrated Care Systems should support future shared-care models incorporating a multidisciplinary and whole-systems approach. Furthermore, appropriate long-term follow-up of these patients will provide opportunities for healthcare professionals to augment outcomes from bariatric surgery, such as weight loss and glycaemic control, as understanding of effective adjunctive treatments post-bariatric surgery increases.<sup>12</sup>

## CONCLUSION

There is a clear need to re-evaluate current pathways for the long-term follow-up of patients post-bariatric surgery. This should take into account the views of all those responsible for the current shared-care model (including the patient, bariatric specialist team, and primary care), yet also wider community healthcare professionals (such as community dietitians and pharmacists) to consider different approaches to post-bariatric surgical care in the community. The responsibility for

the design of the shared-care model must not end with the agreement of a local pathway but should be evaluated following implementation to identify challenges and adapt accordingly. Funding needs to be allocated to evaluate 'real-life' shared-care models and weight management pathways to address the longer-term goals of developing robust, cost-effective obesity and post-bariatric surgery follow-up care in the face of both the coronavirus and obesity pandemics.

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## Provenance

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## Competing interests

Karen D Coulman collaborates with two of the study authors from the referenced Parretti *et al* article<sup>6</sup> on other publicly funded obesity research projects. Dimitri J Pournaras receives professional education fees for Johnson and Johnson, Medtronic, and Novo.

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