PrescQIPP stakeholder update: 224. Bariatric surgery
BDA and BOMSS joint consultation response

Document
Bariatric surgery patients and their medicines - including alternative formulations and 3 nutritional supplements

Summarise your position
Guidance for prescribers on optimising medicines for patients that have undergone bariatric surgery is welcomed. Often the changing requirements of patients is overlooked. This is a joint response on behalf of the British Obesity and Metabolic Surgery Society (BOMSS) and the British Dietetic Association. There are a couple of areas that we believe need to be expanded. BOMSS nutritional guidelines are currently being updated. It is BOMSS position that multivitamin and mineral supplements are part of lifelong treatment post-operatively and they should be available on prescription. There is no mention of oral contraceptives. We believe this would be a useful addition as the absorption may be affected leading to unplanned pregnancies.

Is this resource factually correct?
The majority is factually correct however the nutritional aspects are not accurate. It is important that the gastric bypass is called Roux-en-Y gastric bypass as the one anastomosis gastric bypass/mini gastric bypass is a different procedure and has a significantly increased incidence of nutritional deficiencies if there is a long bilio pancreatic limb. (Ajuha MGB-OAGB: Effect of Biliopancreatic Limb Length on Nutritional Deficiency, Weight Loss, and Comorbidity Resolution Obesity Surgery https://doi.org/10.1007/s11695-018-3405-7.)

There is also Single Anastomosis Duodeno-Ileal Switch (SADIS) to consider. (Shoar 2018 Single Anastomosis Duodeno-Ileal Switch (SADIS): A Systematic Review of Efficacy and Safety OBES SURG (2018) 28:104–113 DOI 10.1007/s11695-017-2838-8)

Nutritional deficiencies are similar to the duodenal switch. OAGB and SADIs are being done in the UK

Focus points
Lines 50-53
BOMSS recommend that patients have access to prescribed multivitamins and minerals as part of their post-surgery treatment. OTC multivitamin and mineral supplements may not meet the recommended amounts of vitamins and micronutrients. For instance, many do not contain zinc or copper in the recommended amounts (2 mg copper and 8 -15 mg zinc/1mg copper). Many will not contain selenium. In addition, a recent Which report highlighted that there was inconsistent composition of OTC preparations. Forceval contains the recommended amounts.

References:

- "Revealed: vitamin supplements that don't contain what they say" Read more: https://www.which.co.uk/news/2019/03/revealed-vitamin-supplements-that-dont-contain-what-they-say/ - Which? March 2019

- Parrott et al 2017 American Society for Metabolic and Bariatric Surgery Integrated Health Nutritional Guidelines for the Surgical Weight Loss Patient 2016 Update: Micronutrients Surgery for Obesity and Related Diseases:13; 727–741 https://asmbs.org/app/uploads/2008/09/ASMBS-Nutritional-Guidelines-2016-Update.pdf

- BOMSS nutritional guidelines already referenced

Lines 58-59

Page 7 –

Malabsorption. Calcium is important after all procedures and additional supplementation is require following sleeve gastrectomy,

Roux-en-Y-gastric bypass and duodenal switch. Calcium - both calcium carbonate and calcium citrate are recommended. Parrott et al 2017: To enhance calcium absorption in post-WLS patients (Grade C, BEL3): Calcium should be given in divided doses. Calcium carbonate should be taken with meals. Calcium citrate may be taken with or without meals Vitamin D Most patients with obesity have vitamin D deficiency. It should be corrected prior to surgery and following gastric bypass, sleeve gastrectomy and duodenal switch, patients will require higher maintenance doses. it is likely that the dosage will need to be individualised to maintain levels. Fat soluble vitamins A, E and K deficiencies are not common following Roux-en-Y gastric bypass but are common following the duodenal switch. Patients do not have fat malabsorption following the gastric bypass unless it is a distal bypass. Fat malabsorption occurs after the duodenal switch and additional high doses of fat-soluble vitamins are needed. For instance, DEKAs Plus. Whilst the risk of vitamin B12 deficiency is greatest after the gastric bypass, there is increased incidence after sleeve gastrectomy and duodenal switch. BOMSS recommendation is three monthly IM vitamin B12 injections (not oral). Given that vitamin B12 deficiency develops over time and can be masked by folic acid supplementation, vitamin B12 deficiency can be missed until the patient develops symptoms such as peripheral neuropathy Laparoscopic gastric band Whilst this does not impact on the nutritional absorption, it may impact on the types of textures and foods that people can eat. Therefore, a multivitamin and mineral supplement is needed.

Sleeve gastrectomy. Absorption of iron, calcium, vitamin D and vitamin B12 may be affected post sleeve gastrectomy. Recommend Forceval, iron, calcium, vitamin D and three-monthly IM vitamin B12 injections.

Roux-en-Y gastric bypass. Absorption of iron, calcium, vitamin D and vitamin B12 are affected post-Roux-en-Y gastric bypass. In addition, absorption of zinc, copper, selenium and vitamin A may be affected. Recommend Forceval, iron, calcium, vitamin D and three-monthly IM vitamin B12 injections.

Duodenal Switch. In addition to malabsorption of iron, calcium, vitamin D and vitamin B12, there is malabsorption of protein, fat, fat soluble vitamins A.E and K, zinc, copper and selenium. Recommend Forceval, iron, calcium, vitamin D and three-monthly vitamin B12 injections. In addition, prescribe high dose fat soluble vitamins such as DEKAs Plus.

The One Anastomosis Gastric Bypass with a long bilio-pancreatic limb and SADI-s may also result in severe malabsorption of iron, calcium, vitamin D and vitamin B12, protein, fat, fat soluble vitamins A.E and K, zinc, copper and selenium. Supplementation may need to be similar to the Duodenal Switch

References:

- Parrott et al 2017 American Society for Metabolic and Bariatric Surgery Integrated Health Nutritional Guidelines for the Surgical Weight Loss Patient 2016 Update: Micronutrients Surgery for Obesity and Related Diseases:13; 727–741 https://asmbs.org/app/uploads/2008/09/ASMBS-Nutritional-Guidelines-2016-Update.pdf

- BOMSS nutritional guidelines already referenced.

Lines 50-80

Page 7 –

Laparoscopic gastric band. Whilst this does not impact on the nutritional absorption, it may impact on the types of textures and foods that people can eat. Therefore, a multivitamin and mineral supplement is needed.

Sleeve gastrectomy. Absorption of iron, calcium, vitamin D and vitamin B12 may be affected post sleeve gastrectomy. Recommend Forceval, iron, calcium, vitamin D and three-monthly IM vitamin B12 injections.

Roux-en-Y gastric bypass. Absorption of iron, calcium, vitamin D and vitamin B12 are affected post-Roux-en-Y gastric bypass. In addition, absorption of zinc, copper, selenium and vitamin A may be affected. Recommend Forceval, iron, calcium, vitamin D and three-monthly IM vitamin B12 injections.

Duodenal Switch. In addition to malabsorption of iron, calcium, vitamin D and vitamin B12, there is malabsorption of protein, fat, fat soluble vitamins A.E and K, zinc, copper and selenium. Recommend Forceval, iron, calcium, vitamin D and three-monthly vitamin B12 injections. In addition, prescribe high dose fat soluble vitamins such as DEKAs Plus.

The One Anastomosis Gastric Bypass with a long bilio-pancreatic limb and SADI-s may also result in severe malabsorption of iron, calcium, vitamin D and vitamin B12, protein, fat, fat soluble vitamins A.E and K, zinc, copper and selenium. Supplementation may need to be similar to the Duodenal Switch. Current UK recommendations is for vitamin B12 to be given as IM injections BOMSS recommend that patients have access to prescribed multivitamin and mineral supplements as part of post-surgery treatment. Thiamine Patients who experience prolonged vomiting, poor oral intake or non-adherence to vitamin and mineral supplements are at risk of developing thiamine deficiency resulting in Wernicke Encephalopathy. Please start the patient on additional thiamine and vitamin B co immediately.

References:

- Parrott et al 2017 American Society for Metabolic and Bariatric Surgery Integrated Health Nutritional Guidelines for the Surgical Weight Loss Patient 2016 Update: Micronutrients Surgery for Obesity and Related Diseases:13; 727–741 https://asmbs.org/app/uploads/2008/09/ASMBS-Nutritional-Guidelines-2016-Update.pdf

- BOMSS nutritional guidelines already referenced. Ajuha MGB-OAGB: Effect of Biliopancreatic Limb Length on Nutritional Deficiency, Weight Loss, and Comorbidity Resolution Obesity Surgery https://doi.org/10.1007/s11695-018-3405-7 https://link.springer.com/article/10.1007%2Fs11695-018-3405-7

- Shoar 2018 Single Anastomosis Duodeno-Ileal Switch (SADIS): A Systematic Review of Efficacy and Safety OBES SURG (2018) 28:104–113 DOI 10.1007/s11695-017-2838-8 https://link.springer.com/article/10.1007%2Fs11695-017-2838-8

Lines 110-111

Page 8 - Please consider whether the OTC multivitamin and mineral supplement completing matched Forceval with respect to micronutrients including zinc, copper and selenium. BOMSS position is that people should be able to access them on prescription as treatment.

Reference:

- https://www.bomss.org.uk/position-statement-on-over-the-counter-supplements/

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