

MID AND SOUTH ESSEX MEDICINES OPTIMISATION COMMITTEE (MSEMOC)

MULTIVITAMINS AND MINERALS POST BARIATRIC SURGERY FOR SUPPLEMENTATION, INSUFFICIENCY AND MAINTENANCE DOSES

BLACK: NOT FOR PRESCRIBING IN PRIMARY, COMMUNITY OR SECONDARY CARE

Mid and South Essex CCGs do not support the prescribing of multivitamins and minerals required post bariatric surgery for supplementation, insufficiency or maintenance doses. It is recommended that patients purchase an over-the-counter multivitamin and minerals supplement and take the appropriate dose depending on the type of surgery that they have undergone. This position statement does not apply if indicated for actual vitamin/mineral deficiency.

All bariatric procedures affect nutritional intake and some procedures may affect the absorption of macronutrients and/or micronutrients. Patients will be required to stay on lifelong nutritional supplements in addition to a balanced diet, and have lifelong monitoring of their nutritional status. It is important that compliance with supplements is checked regularly. The patient's bariatric centre should provide full details of the patient's nutritional monitoring requirements, and supplements needed. It is usual for the bariatric centre to provide the first two years of follow up before discharging care back to the GP.

Recommendations

- A complete multivitamin and mineral supplement (containing iron, selenium, zinc and copper) is recommended **lifelong after all bariatric procedures**.
- It is recommended that patients purchase an over-the-counter multivitamin and multimineral supplement.
- It is important to note that some multivitamin supplements that are routinely available may not contain sufficient amounts of certain vitamins, depending on the recommended doses, to counteract the malabsorptive effects of bariatric surgery. In addition, some do not contain additional, or contain insufficient amounts of minerals and trace elements.
- For procedures other than gastric balloon or gastric band, a minimum of **2mg of copper per day** is advised. Many over the counter preparations contain 1mg of copper, therefore, it may be necessary to recommend that patients take **2 tablets daily** of multivitamin and mineral supplements (ensure that the patient is counselled).
- A ratio of **8mg to 15mg of zinc for each 1mg of copper** (i.e.16mg to 30mg of zinc for each 2mg of copper) should be maintained.

Calcium and vitamin D

- Patients who have undergone procedures other than gastric balloon or gastric band are likely to require a supplement giving **800mg calcium and 20mcg vitamin D**.
- A calcium and vitamin D supplement will need to be taken **in combination** with a multivitamin and multimineral supplement.

As an example, the most suitable combination available to purchase currently to meet the above requirements is **Tesco A-Z Multivitamins and Minerals plus Tesco Calcium and Vitamin D**:

Product	Copper per tablet	Zinc per tablet	Vitamin D per tablet	Calcium per tablet	Cost for 30 days ⁺
Tesco A-Z Multivitamins and Minerals	1mg	10mg	10mcg	200mg	£1.17*
Tesco Calcium and Vitamin D	N/A	N/A	2.5mcg	400mg	£0.75*
Total combined dose: 1 tablet daily Multivitamins and Minerals plus 1 tablet daily Calcium and Vitamin D (gastric balloon or gastric band)	1mg	10mg	12.5mcg	600mg	£1.92



Total combined dose: 2 tablets daily Multivitamin and Mineral plus 1 tablet daily Calcium and Vitamin D (all other procedures)	2mg	20mg	22.5mcg	800mg	£3.09
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+ Prices accurate as of September 2020. Prices may be cheaper where multi-buy offers can be obtained

* Based on 90 tablet pack

Vitamin B12

In addition to multivitamins and minerals, patients who have undergone gastric bypass will require three-monthly intramuscular injections of vitamin B12. Patients who have undergone sleeve gastrectomy surgery or duodenal switch are usually recommended to have initial three-monthly intramuscular injections of vitamin B12 but may need less frequent injections depending on blood results.

When to request specialist biochemical/nutritional advice or to refer your patient

Diagnosis and management of micronutrient deficiency syndrome can be complex and so when in doubt it is recommended that specialist advice is sought. The following are examples of situations where this is appropriate:

1. Newly identified biochemical deficiency, where there is differential diagnosis (there can be causes other than previous bariatric surgery) or its appropriate investigation and treatment are uncertain.
2. Unexplained symptoms that may be indicative of underlying micronutrient/trace element deficiencies.
3. Women who have undergone previous gastric bypass, sleeve gastrectomy or duodenal switch surgery and who are planning to become pregnant or who are pregnant.

Providers commissioned to provide services on behalf of Mid and South Essex CCGs are reminded that they are required to follow the local joint formulary and prescribing guidance, as detailed in the medicines management service specification of their contract.

References	<ul style="list-style-type: none"> ▪ BOMSS Guidelines on peri-operative and post-operative biochemical monitoring and micronutrient replacement for patients undergoing bariatric surgery. September 2014: https://www.bomss.org.uk/wp-content/uploads/2014/09/BOMSS-guidelines-Final-version1Oct14.pdf ▪ BOMSS GP Guidance: management of nutrition following bariatric surgery. Aug 2014: http://www.bomss.org.uk/wp-content/uploads/2014/09/GP_Guidance-Final-version-1Oct141.pdf
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