

**POLICY FOR
THE PRESCRIBING OF MULTIVITAMINS AND MINERALS**

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Intended audience	All Primary and Secondary Care prescribers working on behalf of Manx Care	
Superseded documents	N/A	
Stakeholders consulted prior to ratification	GP Reps, Chief Pharmacist Nobles Hospital, Rheumatology Department, Gastro-intestinal Department, Endocrine Department	
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Previous reviews	N/A	
Changes made during latest review	N/A	

1. INTRODUCTION

1.1 Purpose

Manx Care does not support the routine prescribing of multivitamin and mineral preparations.

The prescribing of vitamins and minerals is only appropriate where there is a medically diagnosed deficiency, including for those patients who may have a lifelong or chronic condition or have undergone surgery that results in malabsorption. Continuing need should be reviewed on a regular basis.

This policy does not cover the prescribing of individual vitamin or mineral preparations.

1.2 Scope

All clinicians across primary and secondary care, who prescribe within or on behalf of Manx Care.

2. POLICY

2.1 Rationale

Vitamins and minerals are essential nutrients which most people should get from eating a healthy, varied and balanced diet.

The prescribing of vitamins and minerals on prescription is only recommended for the prevention of specific deficiency states and in specific conditions.^{1,2}

Manx Care will only support the routine prescribing or recommend interventions that are supported by evidence that demonstrates clinical and cost effectiveness. At present there is insufficient high quality evidence to demonstrate clinical effectiveness of vitamins and minerals outside of these approved indications.

2.2 Recommendations

- Vitamins and minerals outside of approved indications should not be prescribed on the NHS or recommended due to the lack of evidence of clinical effectiveness^{1,2,3}
- Review all patients currently prescribed vitamin and mineral preparations, and discontinue therapy in those patients where treatment is not in line with an approved indication
- Do not initiate new prescriptions for vitamin and mineral preparations unless they are for management of actual or potential vitamin or mineral deficiency in line with an approved indication

Some multivitamins and minerals are recommended for pregnant and breast-feeding women, in children under 5, as a preventative measure. Patients should be advised to purchase these supplements over the counter as part of self-care.

Advise patients on how to eat a healthy, varied and well-balanced diet to provide the vitamins and minerals needed (see Dietary Advice below).

If patients still want to take vitamins and minerals for dietary supplementation or as a 'pick-me-up', they should consult their community pharmacist who can advise on suitable products which can be purchased as part of self-care.

Patients who have undergone bariatric surgery should continue to purchase the recommended vitamins and minerals, but can be prescribed appropriate supplements to treat actual deficiencies (see Bariatric Surgery below).

2.3 Recommended Products

There are limited multivitamin and mineral preparations that are recommended for prescribing in accordance with licences and BNF guidance. For patients within approved indications, the BNF advises on vitamin and mineral preparations which can be prescribed, as detailed below:

2.3.1 Children

Multivitamin supplements are used in children with vitamin deficiencies and also in malabsorption conditions such as cystic fibrosis or liver disease. Supplementation is not required if nutrient enriched feeds are used, and should be initiated by a dietician or paediatrician.

The approved multivitamin preparations in the BNF are:

- **Abidec Multivitamin drops**[®] which is licensed for prevention of deficiency and prevention of deficiency in cystic fibrosis patients
- **Dalivit oral drops**[®] which is licensed for prevention of deficiency and prevention of deficiency in cystic fibrosis patients
- **Forceval capsules**[®] which is licensed for vitamin and mineral deficiency and as adjunct in synthetic diets (12 years and over).
- **Ketovite liquid/tablets**[®] which are licensed for prevention of vitamin deficiency in disorders of carbohydrate or amino-acid metabolism and adjunct in restricted, specialised, or synthetic diets
- **Vitamins A, B Group, C and D capsules** which is licensed for prevention of deficiency and prevention of deficiency in cystic fibrosis patients

2.3.2 Adults

Vitamins are used for the prevention and treatment of specific deficiency states or where the diet is known to be inadequate; they may be prescribed to prevent or treat deficiency but not as dietary supplements.

The approved multivitamin preparations in the BNF are:

- **Forceval capsules**[®] which is licensed for vitamin and mineral deficiency and as adjunct in synthetic diets. (**Forceval soluble tablets**[®] may be used in tube fed patients, those with swallowing difficulties and those post-bariatric surgery should Ketovite liquid[®] be unavailable/unsuitable)
- **Ketovite liquid/tablets**[®] which are licensed for prevention of vitamin deficiency in disorders of carbohydrate or amino-acid metabolism and adjunct in restricted, specialised, or synthetic diets
- **Renavit tablets**[®] for the dietary management of water soluble vitamin deficiency in renal failure patients receiving dialysis (ACBS approved indication)

2.4 Dietary Advice

Vitamins and minerals are essential nutrients which most people should get from eating a healthy, varied and balanced diet.⁴ Patients should be advised that this can be achieved by eating a balance of starchy foods (wholegrain where possible) with plenty of fruit and vegetables (at least five portions a day); some protein-rich foods; some milk and dairy foods; and not too much fat, salt or sugar. This will give them all the nutrients they need.⁵

Eating a varied, balanced and healthy diet will not only help patients to obtain their vitamin and mineral intake from food rather than taking a supplement it will also help them achieve and maintain a healthy weight. Most adults in England are overweight or obese.^{5,6} Patients should be given advice on what foods and drinks to consume and the correct portion sizes they should have.⁵ Reducing calorie intake will reduce weight which in turn reduces the risks of serious and potentially life-threatening conditions, such as:

- Type 2 diabetes
- Coronary heart disease
- Some types of cancer, such as breast cancer and bowel cancer
- Stroke.⁶

Many people choose to take vitamin and mineral supplements, but taking too much or taking them for too long could be harmful.^{1,8} The Department of Health has developed dietary reference values for vitamins to indicate the recommended quantities to take^{8,9} – see Appendix 1.

2.5 Bariatric Surgery

In the case of bariatric surgery, some procedures may affect the absorption of macronutrients and/or micronutrients. Patients should be advised to purchase an appropriate multivitamin tablet to meet their nutritional needs. If the patient develops an actual vitamin/ mineral deficiency despite taking an over the counter multivitamin tablet, treatment to correct the deficiency should be prescribed for the period needed to replenish stores or reverse the deficiency symptoms. The required vitamins and minerals following bariatric surgery vary in the time it takes for body stores to be replenished (ranging from around 8 weeks for vitamin D to 6 months for iron). Trace elements (zinc, copper, selenium) cannot be stored in sufficient amounts in the body and so would need oral replacement should the patient show signs of deficiency which are confirmed by a blood test. Following treatment once deficiency symptoms are resolved and serum blood concentrations are restored to normal levels, patients should be asked to purchase multivitamin tablets as stated below to meet their dietary requirements:

- It is recommended that patients purchase an over the counter multivitamin and multi-mineral tablet as recommended by their surgeon/care team following gastric balloon or gastric band procedures.
- 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 counter 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. Although Forceval[®] contains 2mg copper, many over the counter preparations contain 1mg; therefore it may be necessary to recommend that patients take 2 tablets daily of multivitamin and mineral supplements. A ratio of 8-15mg of zinc for each 1mg copper should be maintained.

Diagnosis and management of micronutrient deficiency syndrome following bariatric surgery 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:

- a) 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.
- b) Unexplained symptoms that may be indicative of underlying micronutrient/trace element deficiencies.
- c) Women who have undergone previous gastric bypass, sleeve gastrectomy or duodenal switch surgery and who are planning to become pregnant or who are pregnant.

3. REFERENCES AND/OR RESOURCES

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3. PRESCQIPP bulletin 296: Vitamins and Minerals 2.0, November 2021. Available online from <https://www.prescqipp.info/our-resources/bulletins/bulletin-296-vitamins-and-minerals/> (Accessed 09/12/2021)
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4. APPENDICES

Appendix 1: Dietary Reference Values for Vitamins and Minerals

5. DEFINITIONS

Roles and Responsibilities

None

6. RELATED POLICY/STRATEGY/LEGISLATION/GUIDANCE *[Delete as applicable]*

None

To Consult With:

Dietetics

GPs/GP Reps

Chief Pharmacist Nobles Hospital

Government recommendations for vitamins for males and females aged 1 – 18 years¹

Age (years)	1		2 - 3		4 - 6		7 - 10		11 - 14		15 - 18	
Gender	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Vitamin A (µg/day)*	400	400	400	400	400	400	500	500	600	600	700	600
Thiamin (mg/day)	0.3	0.3	0.4	0.4	0.6	0.6	0.7	0.7	1.0	0.8	1.0	0.8
Riboflavin (mg/day)	0.6	0.6	0.6	0.6	0.8	0.8	1.0	1.0	1.2	1.1	1.3	1.1
Niacin equivalent (mg/day)	5.0	4.7	7.2	6.6	9.8	9.1	12.0	11.2	16.5	13.2	16.5	13.2
Vitamin B ₆ (mg/day)	0.7	0.7	0.7	0.7	0.9	0.9	1.0	1.0	1.2	1.0	1.5	1.2
Vitamin B ₁₂ (µg/day)	0.5	0.5	0.5	0.5	0.8	0.8	1.0	1.0	1.2	1.2	1.5	1.5
Folate (µg/day)**	70	70	70	70	100	100	150	150	200	200	200	200
Vitamin C (mg/day)*	30	30	30	30	30	30	30	30	35	35	40	40
Vitamin D (µg/day)***	10	10	10	10	10	10	10	10	10	10	10	10

Government recommendations for vitamins for males and females aged 19+ years¹

Age (years)	19 - 64		65 - 74		75+	
Gender	Males	Females	Males	Females	Males	Females
Vitamin A (µg/day)	700	600	700	600	700	600
Thiamin (mg/day)	1.0	0.8	0.9	0.8	0.9	0.7
Riboflavin (mg/day)	1.3	1.1	1.3	1.1	1.3	1.1
Niacin equivalent (mg/day)	16.5	13.2	15.5	12.6	15.1	12.1
Vitamin B ₆ (mg/day)	1.4	1.2	1.4	1.2	1.4	1.2
Vitamin B ₁₂ (µg/day)	1.5	1.5	1.5	1.5	1.5	1.5
Folate (µg/day)*	200	200	200	200	200	200
Vitamin C (mg/day)	40	40	40	40	40	40
Vitamin D (µg/day)**	10	10	10	10	10	10

Government recommendations for minerals for males and females aged 1 – 18 years¹

Age (years)	1		2 - 3		4 - 6		7 - 10		11 - 14		15 - 18	
Gender	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Iron (mg/day) [†]	6.9	6.9	6.9	6.9	6.1	6.1	8.7	8.7	11.3	14.8	11.3	14.8
Calcium (mg/day)	350	350	350	350	450	450	550	550	1000	800	1000	800
Magnesium (mg/day)	85	85	85	85	120	120	200	200	280	280	300	300
Potassium (mg/day)	800	800	800	800	1100	1100	2000	2000	3100	3100	3500	3500
Zinc (mg/day)	5.0	5.0	5.0	5.0	6.5	6.5	7.0	7.0	9.0	9.0	9.5	7.0
Copper (mg/day)	0.4	0.4	0.4	0.4	0.6	0.6	0.7	0.7	0.8	0.8	1.0	1.0
Iodine (µg/day)	70	70	70	70	100	100	110	110	130	130	140	140
Selenium (µg/day)	15	15	15	15	20	20	30	30	45	45	70	60
Phosphorus (mg/day)	270	270	270	270	350	350	450	450	775	625	775	625
Chloride (mg/day)	800	800	800	800	1100	1100	1800	1800	2500	2500	2500	2500
Sodium (g/day) [‡]	0.8	0.8	0.8	0.8	1.2	1.2	2.0	2.0	2.4	2.4	2.4	2.4

Government recommendations for minerals for males and females aged 19+ years¹

Age (years)	19 - 64		65 - 74		75+	
Gender	Males	Females	Males	Females	Males	Females
Iron (mg/d) [†]	8.7	14.8(19-50y) 8.7 (50-64y)	8.7	8.7	8.7	8.7
Calcium (mg/day)	700	700	700	700	700	700
Magnesium (mg/day)	300	270	300	270	300	270
Potassium (mg/day)	3500	3500	3500	3500	3500	3500
Zinc (mg/day)	9.5	7.0	9.5	7.0	9.5	7.0
Copper (mg/day)	1.2	1.2	1.2	1.2	1.2	1.2
Iodine (µg/day)	140	140	140	140	140	140
Selenium (µg/day)	75	60	75	60	75	60
Phosphorus (mg/day)	550	550	550	550	550	550
Chloride (mg/day)	2500	2500	2500	2500	2500	2500
Sodium (g/day) [‡]	2.4	2.4	2.4	2.4	2.4	2.4