

The prescribing of vitamins and minerals including vitamin B preparations (DROP-List)

This is one of a number of bulletins providing further information on medicines contained in the PrescQIPP DROP-List (Drugs to Review for Optimised Prescribing).¹ This bulletin focuses on the prescribing of vitamins and minerals, their review and discontinuation if the Advisory Committee on Borderline Substances (ACBS) prescribing criteria are not met.² This bulletin includes vitamin B preparations and looks at the most cost effective prescribing options available. It does not cover the prescribing of vitamin D or omega-3 fatty acids as these are considered in separate bulletins. Further bulletins, including the full DROP-List, are available at www.prescqipp.info

Recommendations

- Review all patients prescribed vitamin and mineral preparations included in the DROP-List and ensure that all prescribing is in-line with an ACBS approved indication, i.e. only in the management of actual or potential vitamin or mineral deficiency; they are not to be prescribed as dietary supplements or as a general "pick-me-up".
- Discontinue prescribing of vitamins and minerals on FP10 for patients who are not being treated in-line with an ACBS approved indication.
- Recommend eating a healthy, varied and well balanced diet which includes starchy foods, plenty of fruit and vegetables; some protein; some dairy; and not too much fat, salt or sugar, to provide the vitamins and minerals needed.
- If patients still want to take vitamins and minerals for dietary supplementation or as a "pick-me-up" they should be advised that they can be purchased as self-care over-the-counter with the support of the community pharmacist.
- Do not initiate new prescriptions for vitamin and mineral preparations unless they are for the management of actual or potential vitamin or mineral deficiency in-line with an ACBS approved indication.
- Some patients may be eligible for NHS Healthy Start vitamins which are specifically designed for pregnancy, breastfeeding and growing children. They are available free of charge from local distribution points. More information is available from the Healthy Start website: <http://www.healthystart.nhs.uk/healthy-start-vouchers/healthy-start-vitamins/>
- Review all patients prescribed vitamin B and ensure that it is appropriate and the most cost effective preparation is prescribed.
- Certain patients with malnutrition may require a vitamin and mineral supplementation. Malnutrition is not covered in this bulletin. More information can be found in the National Institute for Health and Care Excellence (NICE) pathway, Nutrition support in adults, <http://pathways.nice.org.uk/pathways/nutrition-support-in-adults>

Background

The PrescQIPP DROP-List is a list of medicines regarded as low priority for prescribing, poor value for money or medicines where there are safer alternatives. There are also medicines which could be considered for selfcare with the support of the community pharmacist included on the DROP-List.¹

Approximately £4.2 million is spent annually in England on the prescribing of vitamins and minerals (multivitamin and mineral supplements excluding vitamin B compound products) (ePACT February - April 2015). As with all prescribing, individual patient circumstances need to be borne in mind and certain people should continue to receive prescriptions for vitamins and minerals. However, all patients should be reviewed and any prescribing not in-line with an ACBS approved indication should be discontinued. Patients should be advised about dietary intake and any patients who wish to continue to take a vitamin and mineral preparation should be advised to purchase them over-the-counter from a community pharmacy. This will release cost savings for the NHS which could be invested in improving local healthcare services.

Vitamins and minerals are essential nutrients which most people should get from eating a healthy, varied and balanced diet.³ 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.⁴ The eatwell plate is very useful tool which can be used to demonstrate to people how a healthy, varied and balanced diet can be achieved and what proportion of each food type should be consumed.^{4,5}

Figure 1. The eatwell plate⁵



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.^{4,6} This means they are eating and drinking more than they need. Patients should be given advice on what foods and drinks to consume and the correct portion sizes they should have.⁴ 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

There are many online resources available which patients can be signposted to that offer lifestyle advice covering healthy eating to achieve a nutritious diet. These include:

- NHS Choices <http://www.nhs.uk/livewell/healthy-eating/Pages/Healthyeating.aspx>
- Change for Life <http://www.nhs.uk/change4life/Pages/change-for-life.aspx>
- The Association of UK Dietitians <https://www.bda.uk.com/>

Rationale for discontinuation of the prescribing of vitamins and minerals

The ACBS recommends some foods and toilet preparations which may be regarded as drugs for the treatment of specified conditions. If a doctor is satisfied that the product can be safely prescribed, that patients will be adequately monitored and have access to hospital supervision if needed, they can prescribe these products on a prescription endorsed with “ACBS”.^{2,7} These are considered as “Borderline Substances” and should only be prescribed on FP10 for the specified indications listed in Part XV of the Drug Tariff,² available at http://www.ppa.org.uk/edt/March_2015/mindex.htm

The prescribing of vitamins and minerals on the NHS is recommended by the ACBS committee for the prevention and treatment of specific deficiency states or where the diet is known to be inadequate. They must not be prescribed as dietary supplements or a general ‘pick-me-up’ and this use of vitamins and minerals is unproven.⁷ Any prescribing not in-line with an ACBS approved indication should be discontinued.

In addition to being classified as “Borderline Substances” in Part XV of the Drug Tariff, certain vitamin and mineral preparations are also listed in Part XVIII A of the Drug Tariff - Drugs, Medicines and Other Substances not to be ordered under a General Medical Services Contract. Examples include Sanatogen Multivitamins Tablets, Golden Age Vitamin & Mineral Capsules, Nature's Own Multi-Vitamin Tablets and Unichem Multivitamins & Minerals One-A-Day Capsules. These are not permitted on FP10 will not be reimbursed by the NHS Prescription Services.²

For patients in-line with the ACBS indications, the BNF advises vitamin and mineral preparations which can be prescribed, these include:

- Vitamin capsules
- Abidec®
- Dalivit®
- Forceval® which is licensed for vitamin and mineral deficiency and as adjunct in synthetic diets
- Ketovite® which is licensed for prevention of vitamin deficiency in disorders of carbohydrate or amino-acid metabolism and adjunct in restricted, specialised, or synthetic diets.⁷

Many people choose to take vitamin and mineral supplements, but taking too much or taking them for too long could be harmful. This is especially true in the case of preparations containing vitamins A or D or mega-vitamin therapy with water-soluble vitamins, such as ascorbic acid and pyridoxine, which is unscientific and can be harmful.^{7,8} The Department of Health has developed dietary reference values for vitamins to indicate the recommended quantities to take.⁹

NICE recommends some supplements for patient groups who are at risk of deficiency.⁸ This includes:

- Folic acid supplements for women who may become pregnant and women in early pregnancy to reduce the risk of having a baby with a neural tube defect (for example, anencephaly and spina bifida).¹⁰
- Vitamin D supplements for at risk patient groups for example pregnancy, breastfeeding, children under 5, people over 65, people who have darker skin and those who have low or no exposure to the sun.¹¹

- Vitamins A, C and D supplements are recommended for all children aged six months to five years. This is as a precaution because growing children may not get enough, especially those not eating a varied diet, such as fussy eaters.¹⁰
- Some supplements may be prescribed for certain medical conditions. For example, iron supplements to treat iron deficiency anaemia.⁸
- Vitamin and mineral supplements may be required for certain patients with malnutrition as recommended in the NICE clinical guideline on nutrition support in adults.¹²

Some patients may be eligible for the NHS Healthy Start scheme so do not need to be prescribed vitamins and minerals. As part of the scheme pregnant women, women with a baby under one year old and children from six months old to their fourth birthday will get a green NHS Healthy Start vitamin coupon every eight weeks.¹³








- Healthy Start women's vitamin tablets contain: Folic acid, Vitamin C and Vitamin D.
- Healthy Start children's vitamin drops contain: Vitamin A, Vitamin C and Vitamin D.¹³

Effervescent vitamin supplements can contain up to a gram of salt per tablet and may not be suitable for some patients, for example patients with hypertension who have been advised to follow a low salt diet. If a vitamin preparation is indicated consider changing to a non-effervescent tablet.⁸

Deficiency of the B vitamins, with the exception of vitamin B12, is rare in the UK and is usually treated by preparations containing thiamine (B1), riboflavin (B2), and nicotinamide.⁷ Pabrinex® I/V and I/M high potency injections, vitamin B compound tablets, vitamin B compound strong tablets and Vigranon B® all contain thiamine, riboflavin, and nicotinamide.

Table 1: Oral vitamin B complex preparations⁷

Product	Content	Indication & dose	Quantity & price ²	Cost for 28 days at max dose	Comment
Vitamin B compound tablets	nicotinamide 15mg, riboflavin 1mg, thiamine hydrochloride 1mg	Prophylaxis of vitamin B deficiency, 1-2 tablets daily	28/£26.11 Category A	£52.22	 Less suitable for prescribing
Vitamin B compound strong tablets	nicotinamide 20mg, pyridoxine hydrochloride 2mg, riboflavin 2mg, thiamine hydrochloride 5mg	Treatment of vitamin B deficiency, 1-2 tablets 3 times daily	28/ £1.97 Category M	£11.82	 Less suitable for prescribing
Vigranon B® syrup	thiamine 5mg, riboflavin 2mg, nicotinamide 20mg, pyridoxine 2mg, panthenol 3ml/5ml	 Not prescribable on the NHS and  Less suitable for prescribing			

All three preparations have the symbol  which denotes that are considered by the Joint Formulary Committee to be less suitable for prescribing. Consequently they should not be considered as drugs of first choice, but may be justifiable in certain circumstances.⁷ However Vigranon B® syrup is listed in Part XVIII A of the Drug Tariff - Drugs, Medicines and Other Substances not to be ordered under a General Medical Services Contract so it is not permitted on FP10 and will not be reimbursed by the NHS Prescription Services.²

Oral thiamine is recommended by both NICE and the Scottish Intercollegiate Guidelines Network (SIGN) for patients who have a chronic alcohol problem and whose diet may be deficient.^{13,14} NICE recommends prescribing prophylactic oral thiamine for harmful or dependent drinkers if they are malnourished, at risk of malnourishment, they have decompensated liver disease, are in acute withdrawal or before and during a planned medically assisted alcohol withdrawal. The guidelines recommend prescribing thiamine in doses toward the upper end of the BNF dosage (for mild deficiency 25–100 mg daily and for severe deficiency, 200–300 mg daily in divided doses).⁷⁻¹⁵ They do not recommend the prescribing of vitamin B complex preparations. If it is considered that the prescribing of a vitamin B complex preparation is justifiable the vitamin B compound strong tablets represent a more cost effective option than vitamin B compound tablets.

Benefits to patients

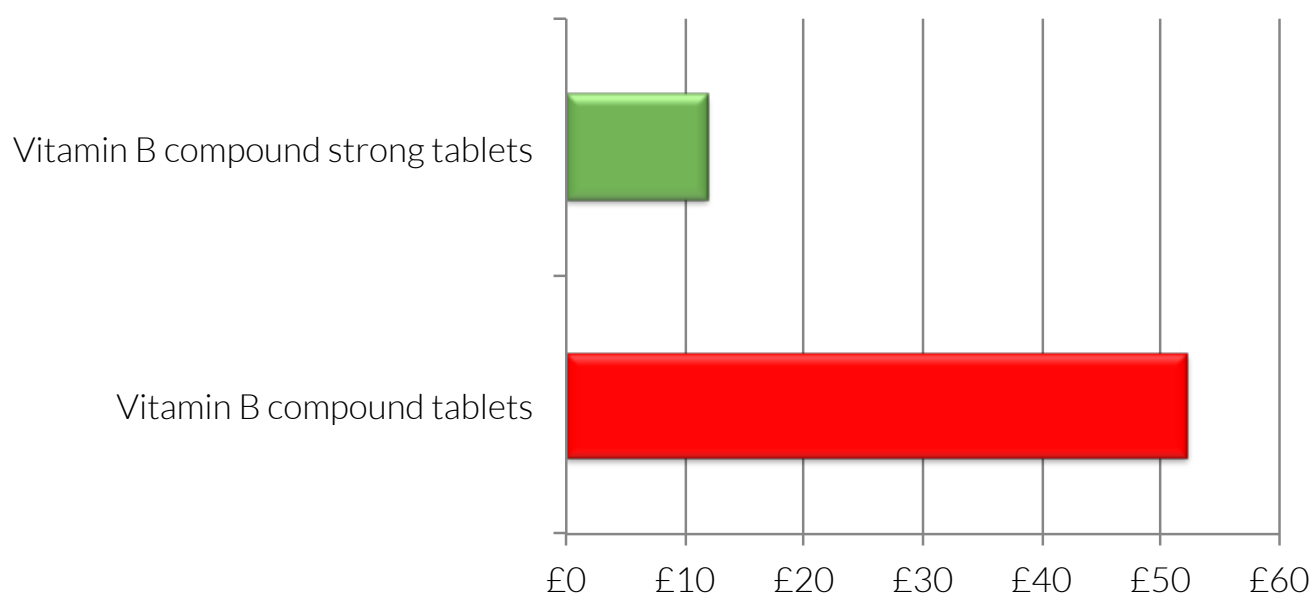
- Patients are provided with information to educate them and help them understand how to eat a healthy, nutritious and balanced diet.
- This will lead to a healthier life style, weight reduction and a reduction in the risks of developing potentially life-threatening conditions.
- The risks of harmful effects from taking too many vitamins and minerals for too long are reduced.
- A reduction in the prescribing of vitamin and mineral preparations outside an ACBS approved indication will release cost savings for the NHS which could be invested in improving local healthcare services for patients.

Costs and savings

In England approximately £4.2 million is spent annually on the prescribing of vitamins and minerals (multivitamin and mineral preparations excluding vitamin B complex preparations) (ePACT February - April 2015). Prescribing should only be for patients' in-line with an ACBS approved indication. Patients, who are not being treated in-line with an ACBS recommendation, should have their vitamin and mineral preparation discontinued and a healthy balanced diet should be recommended. If these patients still wish to supplement their diet, they should be advised to purchase vitamins and minerals over-the-counter. **Prescribing 80% less would save over £3.3 million in England over 12 months** (ePACT February - April 2015).

There is a significant difference in cost between vitamin B complex preparations, and all three are considered less suitable for prescribing by the Joint Formulary Committee. Vitamin B compound strong is Category M (see chart 1) and represents the most cost effective choice.

Chart 1: 28 day cost for prescribing oral vitamin B complex preparations at the maximum daily dose



Approximately £12.3 million is spent annually on vitamin B compound preparations (including vitamin B compound strong) (ePACT February to March 2015). Switching all patients receiving vitamin B compound tablets to vitamin B compound strong tablets **would save over £4.3 million in England over 12 months. This equates to £7,706 per 100,000 patients.**

An 80% reduction in vitamin B compound prescribing would save £9.9 million in England over 12 months. This equates to £17,359 per 100,000 patients

Summary

- Vitamins and minerals are recommended by the ACBS committee for the management of actual or potential vitamin or mineral deficiency. They should not be prescribed as dietary supplements or a general 'pick-me-up' as this use of vitamin and mineral preparations is unproven. Prescribing of vitamins and minerals not in-line with the ACBS recommendations should be discontinued and no new prescriptions should be initiated.
- Eating a healthy, varied and well balanced diet should be advised to provide the vitamins and minerals needed. Any patients outside of an ACBS indication who still wish to take a vitamin and mineral preparation for dietary supplementation or as a "pick-me-up" they should be advised that they can be purchased as self-care over-the-counter with the support of the community pharmacist.
- Patients prescribed vitamin B should be reviewed to ensure prescribing is appropriate. If it is appropriate then vitamin B compound strong tablets represent the most cost effective preparation.
- Oral thiamine is recommended by both NICE and the Scottish Intercollegiate Guidelines Network (SIGN) for patients who have a chronic alcohol problem and whose diet may be deficient.

References

1. PrescQIPP DROP-List. Bulletin available at www.prescqipp.info
2. Drug Tariff, January 2015. Accessed 23/12/2014. Available online at http://www.ppa.org.uk/ppa/edt_intro.htm
3. NHS Choices. Vitamins and Minerals. Accessed 29/12/2014. Available online at: <http://www.nhs.uk/Conditions/vitamins-minerals/Pages/vitamins-minerals.aspx>
4. NHS Choices. Live well, A Balanced Diet. Accessed 07/01/2015. Available online at: <http://www.nhs.uk/Livewell/Goodfood/Pages/Healthyeating.aspx>
5. NHS Choices. Live well, The Eatwell Plate. Accessed 07/01/2015. Available online at: <http://www.nhs.uk/Livewell/Goodfood/Pages/eatwell-plate.aspx>
6. NHS Choices. Obesity. Accessed 07/01/2015. Available online at: <http://www.nhs.uk/conditions/Obesity/Pages/Introduction.aspx>
7. British National Formulary. December 2014. Accessed 23/12/2014. Available online at <https://www.medicinescomplete.com/mc/bnf/current/index.htm>
8. NHS Choices. Do I need vitamin supplements? Accessed 12/01/2015. Available online at: <http://www.nhs.uk/chq/pages/1122.aspx?categoryid=51&subcategoryid=168>
9. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom: Report of the Panel on Dietary Reference Values of the Committee on Medical Aspects of Food Policy. Report on Health and Social Subjects 41. London: HMSO, 1991
10. National Institute for Health and Care Excellence (NICE), Public health guidance 11. Maternal and child nutrition. Issued: March 2008 last modified: November 2014. Accessed 23/01/2015. Available online at <http://www.nice.org.uk/guidance/ph11>
11. National Institute for Health and Care Excellence (NICE), Public health guidance 56. Vitamin D: increasing supplement use among at-risk groups. November 2014. Accessed 23/01/2015. Available online at <http://www.nice.org.uk/guidance/PH56>
12. National Institute for Health and Care Excellence (NICE), Clinical guideline 32. Nutrition support in adults, Oral nutrition support, enteral tube feeding and parenteral nutrition. February 2006. Accessed 16/05/2015. Available online at <http://www.nice.org.uk/guidance/cg32>

13. NHS. Healthy Start Vitamins. Accessed 24/01/2015. Available online at <http://www.healthystart.nhs.uk/healthy-start-vouchers/healthy-start-vitamins/>
14. Scottish Intercollegiate Guidelines Network (SIGN), Clinical Guideline 74. The management of harmful drinking and alcohol dependence in primary care. September 2003. Accessed 30/01/2015. Available online at <http://www.sign.ac.uk/pdf/sign74.pdf>
15. National Institute for Health and Care Excellence (NICE), Clinical Guideline 100. Alcohol-use disorders: Diagnosis and clinical management of alcohol-related physical complications. June 2010. Accessed 30/01/2015. Available online at <http://www.nice.org.uk/guidance/cg100>

Additional PrescQIPP resources



Briefing



Data pack



Audits, patient letters and information

Available here: <http://www.prescqipp.info/resources/viewcategory/385-vitamins-and-minerals-drop-list>

Information compiled by Sarah Clarke, PrescQIPP Programme, June 2015 and reviewed by Katie Smith, East Anglia Medicines Information Service, July 2015.

Non-subscriber publication November 2015.

This document represents the view of PrescQIPP at the time of publication, which was arrived at after careful consideration of the referenced evidence, and in accordance with PrescQIPP's quality assurance framework.

The use and application of this guidance does not override the individual responsibility of health and social care professionals to make decisions appropriate to local need and the circumstances of individual patients (in consultation with the patient and/or guardian or carer).

[Terms and conditions](#)