

British Society for Haematology (BSH) guidance on Vitamin B12 replacement during the COVID-19 pandemic

Non-dietary vitamin B12 deficiency

(e.g. pernicious anaemia, prior gastrectomy, bariatric surgery, achlorhydria, pancreatic insufficiency, short bowel syndrome, bacterial overgrowth, inflammatory bowel disease)

NICE Clinical Knowledge Summary 2019: administer hydroxocobalamin 1 mg intramuscularly every 2–3 months for life

British Society for Haematology advice during the COVID-19 pandemic for patients established on intramuscular hydroxocobalamin:

The need for intramuscular (IM) hydroxocobalamin should be discussed with each patient individually. We recommend that screening questions for COVID-19 infection are asked before patients attend their GP surgeries. Alternatives to attending the GP surgery such as local pharmacies or home administration by district nurses should be explored.

As an alternative, oral cyanocobalamin can be offered at a dose of 1 mg per day until regular IM hydroxocobalamin can be resumed, i.e. once GP surgeries are able to do so safely, aiming to have a shortest possible break from regular injections.

Patients should be advised to monitor their symptoms and should contact their GP if they begin to experience neurological or neuropsychiatric symptoms such as pins and needles, numbness, problem with memory or concentration or irritability.

Patients who are already self-administering IM hydroxocobalamin should continue to do so but we do not recommend a patient switching to self-administration during the COVID-19 pandemic since instruction is likely to be difficult.

Dietary Vitamin B12 deficiency

NICE Clinical Knowledge Summary 2019: advise people either to take oral cyanocobalamin tablets 50–150 micrograms daily between meals or have a twice-yearly hydroxocobalamin 1 mg injection. In vegans, treatment may need to be life-long, whereas in other people with dietary deficiency replacement treatment can be stopped once the vitamin B12 levels have been corrected and the diet has improved.

British Society for Haematology advice during the COVID-19 pandemic for patients established on intramuscular hydroxocobalamin:

An alternative is to offer oral cyanocobalamin tablets, 50–150 micrograms, daily between meals. We recommend reassessing serum B12 prior to recommencing IM hydroxocobalamin.

However, many of these patients may be vitamin B12 replete with adequate levels within the liver, and therefore may be able to safely stop taking vitamin B12 supplements possibly for up to a year (Hoffbrand 2016).

Dietary advice should be given to all patients. Patients on vegetarian and especially vegan diets should continue taking oral supplements.

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References:

Castelli, M.C., Friedman, K., Sherry, J., Brazzillo, K., Genoble, L., Bhargava, P. and Riley, M.G.I., 2011. Comparing the efficacy and tolerability of a new daily oral vitamin B12 formulation and intermittent intramuscular vitamin B12 in normalizing low cobalamin levels: a randomized, open-label, parallel-group study. Clinical therapeutics, 33(3), pp.358-371.

Devalia, V., Hamilton, M.S., Molloy, A.M. and British Committee for Standards in Haematology, 2014. Guidelines for the diagnosis and treatment of cobalamin and folate disorders. British journal of haematology, 166(4), pp.496-513

Hoffbrand, A.V., Higgs, D.R., Keeling, D.M. and Mehta, A.B., 2016. *Postgraduate haematology*. John Wiley & Sons.

Kim, H.I., Hyung, W.J., Song, K.J., Choi, S.H., Kim, C.B. and Noh, S.H., 2011. Oral vitamin B12 replacement: an effective treatment for vitamin B12 deficiency after total gastrectomy in gastric cancer patients. Annals of surgical oncology, 18(13), pp.3711-3717.

Kuzminski, A.M., Del Giacco, E.J., Allen, R.H., Stabler, S.P. and Lindenbaum, J., 1998. Effective treatment of cobalamin deficiency with oral cobalamin. Blood, The Journal of the American Society of Hematology, 92(4), pp.1191-1198.

National Institute for Health and Care Excellence (2019) *B12 and Folate deficiency* (Clinical Knowledge Summaries). Available at https://cks.nice.org.uk/anaemia-b12-and-folate-deficiency#!scenarioRecommendation

Stabler, S.P., 2013. Vitamin B12 deficiency. New England Journal of Medicine, 368(2), pp.149-160.