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COVID-19

Questions, Answers and Actions

What are the alternative treatment options for patients who normally receive hydroxocobalamin B12 injection during the COVID-19 pandemic

Question: "What are the alternative treatment options for patients who normally receive hydroxocobalamin B12 injection during the COVID-19 pandemic?"

Answer: There are two different forms of vitamin B12 available in the UK, hydroxocobalamin and cyanocobalamin. Hydroxocobalamin 1mg administered intramuscularly at intervals of 2 to 3 months is usually the preferred method of treatment in the UK for non-diet related vitamin B12 deficiency.[1, 2] Diet related vitamin B12-related deficiency can be treated using oral cyanocobalamin, at doses of 50-150 micrograms daily between meals. If diet related deficiency was previously treated with 6 monthly injections, it is recommended that serum B12 is reassessed prior to recommencing IM hydroxocobalamin. NHSE guidance advises that most patients should not be prescribed oral cyanocobalamin tablets for management of diet related vitamin B12 deficiency but should purchase them OTC.

The COVID-19 pandemic and the requirement for shielding vulnerable patients, social distancing and pressures on the primary care system may lead to alternative treatment options being considered for patients who currently receive their vitamin B12 by injection. The NICE CKS 'Anaemia Vitamin B12 and folate' is the recommended approach; but it is acknowledged that there may be instances presented by the COVID-19 pandemic, where an alternative approach to patient therapy is necessary.

Where administration of the injection is not possible oral therapy may be considered. There is 'low quality' evidence of comparable efficacy, safety and tolerability of high dose (1000-2000 micrograms/day) oral cyanocobalamin to intramuscular hydroxocobalamin.[3] Whilst this evidence has not yet translated into clinical practice in the UK and remains unlicensed, it is licenced for use in several countries outside the UK.[4] Oral absorption can be maximised by administering on an empty stomach.[5]

The British Society for Haematology (BSH) recently updated their COVID-19 guidance (24.04.2020) to advise that in patients established on IM hydroxocobalamin for **non-dietary** vitamin B12 deficiency, that intramuscular (IM) hydroxocobalamin should be discussed with each patient individually, screening questions for COVID-19 infection are asked before patients attend their GP surgeries, and alternatives to attending the GP surgery such as local pharmacies or home administration by district nurses should be explored. This includes patients with pernicious anaemia, prior gastrectomy, bariatric surgery, achlorhydria, pancreatic insufficiency, short bowel syndrome, bacterial overgrowth, inflammatory bowel disease.

After this individual assessment, oral cyanocobalamin may be offered as an alternative treatment, at a dose of 1 mg per day, until regular IM hydroxocobalamin can be safely resumed, whilst aiming to keep the break from regular injections as short as possible.

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.

BSH recommends that patients who are already self-administering IM hydroxocobalamin should continue to do so. However they do not recommend a patient switching to self-administration during the COVID-19 pandemic since instruction is likely to be difficult.

Whilst there are unevaluated reports that relapses in pernicious anaemia occurs between 6 months and 5 years following the end of parenteral therapy, a break from injectable vitamin B12 could be a pragmatic step.[6] BSH suggests a break in therapy as an option in patients with **dietary** B12 deficiency as 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.

Action: Practices should identify all patients who currently receive vitamin B12 injections and discuss the most appropriate course of action based on the BSH guidance as detailed above.

Route of supply: Cyanocobalamin 1000 microgram tablets are unlicensed in the UK but can be obtained through community pharmacy (some stock is classified as a wholesaler 'special'). Practices are advised to discuss the cost of supply with their local pharmacies as this may vary depending on availability options. A staggered approach to switching patients to the oral product based on their diagnosis and duration of therapy should help support the supply chain and is preferred to a whole.

References

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