

TREATING PERNICIOUS ANAEMIA AND THE CURRENT COVID-19 PANDEMIC

A Guide for Doctors

The Pernicious Anaemia Society is fully supportive of any measures taken to reduce the risk of health care professionals contracting the Covid-19 virus. Guidance advising reduced treatment for non-diet related vitamin B12 deficiency, including Pernicious Anaemia, puts patients at a high risk of developing damage to their central and peripheral nervous system. This is recognised by various bodies including the British Society for Haematology who issued their amended Guideline on PA & Covid-19 in April, 2020.^{iv} This Guideline balances the need for patients to receive their parenteral replacement therapy injections whilst reducing the risk to front-line staff of cross-infection.

The following facts may help you to reassess any decision you have made to stop patients' critically important injections:

1. **Vitamin B12 is not stored in the liver for a year or more.** Indeed, many Patients experience symptoms even before the end of their normal treatment intervals and are therefore being under-treated. Livers of patients treated for Pernicious Anaemia contained substantially less B12 than those of healthy individuals.ⁱ Moreover, the amount of B12 in the liver reflects its metabolic requirements, not storage.ⁱⁱ
2. Injections of Hydroxocobalamin every 2-3 months is the current treatment for Pernicious Anaemia and other non-dietary B12 Deficiency.^{iii iv}
3. High Dose (1-2mg) Cyanocobalamin Tablets have been shown to be effective as injections in a few, probably flawed studies,^v but the vast majority of patients with Pernicious Anaemia report no relief of their symptoms and risk developing nerve damage. Although the tablets can be sourced from various outlets they are not licensed as a treatment for Pernicious Anaemia in the UK and are not subject to any pharmaceutical controls (they are food supplements). Any patient who reports any neurological involvement should have their injections reinstated immediately.^{iv}
4. Due to the lack of Intrinsic Factor 50-150mcg tablets of Cyanocobalamin are **completely inadequate** as a treatment for Pernicious Anaemia; these tablets are treatment for vitamin B12 deficiency of dietary origin only ⁱⁱⁱ.
5. Self-administered (subcutaneous) injections should be considered where appropriate.^{vi}
6. Patients who have Pernicious Anaemia and who have had their treatment stopped are already reporting neurological problems to this society. Left untreated the disease leads to severe and irreversible nerve damage –Sub-acute Combined Degeneration of the Cord Secondary to Pernicious Anaemia.
7. We recommend that all patients should be screened for Covid-19 symptoms via a telephone call on the day their injection is due as per the BSH Guideline. If the patient has none of the symptoms then their treatment should go ahead. If they do have symptoms, it should be postponed for two-three weeks or until the patient is symptom free.

References

- i. Bozian RC, Ferguson JL et al. Evidence Concerning the Human Requirement for Vitamin B12. Use of the Whole Body Counter for Determination of Absorption of Vitamin B12. AJCN. 11963 Feb;12:117-29. doi: [10.1093/ajcn/12.2.117](https://doi.org/10.1093/ajcn/12.2.117).
- ii. Nexø, E. Conference communication. 11th International Conference on Homocysteine & One-Carbon Metabolism. 2017; Aarhus, Denmark.
- iii. Joint Formulary Committee. British National Formulary (online) London: BMJ Group and Pharmaceutical Press. [Hydroxocobalamin](#) and [cyanocobalamin](#).
- iv. British Society for Haematology. [British Society for Haematology \(BSH\) guidance on vitamin B12 replacement during the COVID-19 pandemic. 2020.](#)
- v. Wang H, Li L, et al. Oral vitamin B12 versus intramuscular vitamin B12 for vitamin B12 deficiency. Cochrane Database of Systematic Reviews. 2018; DOI: [10.1002/14651858.CD004655.pub3](https://doi.org/10.1002/14651858.CD004655.pub3).
- vi. Royal College of General Practitioners. [RCGP Guidance on Workload Prioritisation during Covid-19](#). 2020; Version 8, 10 Apr 20.