

ALERT

16th May, 2013

False normal B12 results and the risk of neurological damage

B12 assays may be vulnerable to interference resulting in normal values despite severe cobalamin deficiency. Where there is discordance between the clinical features of neuropathy – paraesthesiae, loss of joint position sense, or megaloblastic anaemia and a “normal” B12 result, clinicians are advised to request storage of serum for further testing and are advised to treat the patient with B12 replacement therapy. Further testing may include repeat testing by an alternative B12 assay, holotranscobalamin assay, serum methylmalonic acid and measurement of intrinsic factor antibody. Treatment with B12 should not be delayed to avoid progression of neurological damage.

References:

Carmel R, Argawal YP. 2012 NEJM 367:4 385-386

Hamilton MS, Blackmore S, Lee A. BMJ 2006;333 654-655 BJHaem. 2010 149 supp 1 abstract 54

Devalia V. BMJ 2006;333 385-386

For further information regarding methods affected see downloadable publications - Holotranscobalamin assay 2010 - go to members area- participant information - publications.