

17 July 2017

Dear Colleague

## Interpretation of Low Folate

I have been requested to respond to some GP concerns regarding the reported normal range for serum folate. Some GPs have apparently flagged that they feel the current lower limit of normal range quoted by the laboratory is "too high", and too many patients are being diagnosed with folate deficiency.

Firstly, it is important to state that serum folate levels should only be requested in patients who are anaemic/cytopenic/macrocytic or otherwise known to be at risk of significant folate deficiency, such as those with known malabsorptive syndromes (incl previous bariatric surgery), poor diet (incl excess alcohol use) or chronic haemolytic anaemia. There is no value in checking folate as part of "routine" testing without clinical justification.

Secondly, the normal range is defined by statistical methodology. Under rules of good laboratory practice and strict quality measures (against which the laboratory is constantly assessed externally), we are not at liberty easily to revise the normal range parameters. (Consider the normal range for Vitamin D.....vast numbers of patients are deficient, but that does not mean the laboratory's normal range is wrong)

Thirdly, in terms of interpreting the results I would recommend to consider the following:

1. A folate level > 4.5 ug/L excludes significant deficiency
2. A folate level 2.0-4.5 ug/L may indicate early deficiency, or merely reduced intake over the preceding few days. If the patient has a normal blood count, dietary advice (5 pieces of fruit/veg per day) may well suffice.
3. A level <2.0 ug/L is likely to require additional treatment.

It is important always to exclude significant B12 deficiency in patients with a low folate, before starting folic acid treatment. The blood count changes due to B12 or folate deficiency are indistinguishable, but neurological consequences of undiagnosed B12 deficiency can be exacerbated if patients are given folic acid alone.

High folate levels have no clinical consequence and may be ignored.

I hope you find this advice helpful. Thank you for reading it.



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