

# Response to “Should people treated with metformin be screened for vitamin B<sub>12</sub> deficiency?”



Jane Diggle

Claire Holt's article in the previous issue of this journal raised the question of when it might be appropriate to screen for vitamin B<sub>12</sub> deficiency in those with type 2 diabetes receiving metformin (Holt, 2012). As with so many aspects of diabetes management, it is a complex issue. Approximately 10% of people receiving metformin develop vitamin B<sub>12</sub> deficiency within 4 years, yet not everyone with a biochemical deficiency develops clinical symptoms. Until we have sufficient evidence and can justify the costs of routine screening for vitamin B<sub>12</sub> the suggestion is that we target those patients with clinical features suggestive of this deficiency such as those with neuropathy, cognitive impairment or anaemia.

Claire's article prompted me to think more critically about which blood tests we should (and perhaps should not) be including routinely in the annual diabetes review. Blood tests are not cheap, and with increasing pressure upon us to reduce NHS spending, it seems likely that we may have to justify this in the future.

In terms of guidance, within the Quality and Outcomes Framework there are indicators for achieving various HbA<sub>1c</sub> targets, total cholesterol and eGFR/serum creatinine tests in the previous 15-month period. According to NICE (2009) HbA<sub>1c</sub> should be checked every 2–6 months (according to individual needs) until stable on unchanging therapy, then 6-monthly once stable.

As part of cardiovascular risk status, a full lipid profile is recommended annually,

and for kidney function, a yearly eGFR.

Of course, special circumstances dictate additional testing such as urea and electrolytes with the introduction and up-titration of angiotensin-converting-enzyme inhibitors and angiotensin II receptor blockers, and liver function tests with statin therapy. But should a full blood count also be added to our list of annual requests? After all, we know that disturbed erythrocyte turnover can render the HbA<sub>1c</sub> result invalid, and that renal impairment is associated with anaemia. Are testosterone levels routinely checked in men presenting with erectile dysfunction? Should we also be considering bone chemistry in those with moderately severe chronic kidney disease?

Another question to consider is when should a test be repeated. An abnormal result in isolation is often not that useful, and it needs to be considered in the context of previous results (for example, the rate of decline in eGFR).

I raise many questions and encourage more discussion around the issues of which test, for whom, when and why? And of course, the true value of any test lies in what we do with the result, so we also need to be able to make sense of the results and, importantly, take the appropriate action. ■

Holt C (2012) Should people treated with metformin be screened for vitamin B<sub>12</sub> deficiency? *Diabetes & Primary Care* 14: 204–12

NICE (2009) *CG87 Type 2 Diabetes – Newer Agents*. NICE, London. Available at: [www.nice.org.uk/cg87](http://www.nice.org.uk/cg87) (accessed 10.10.12)

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